McAfee VirusScan Enterprise 8.8 software

Product Guide

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Preface

To use this document effectively you should understand who this document is written for, the conventions used, what's in it, and how to find other reference documentation.

Contents

- Audience
- Conventions
- How this guide is organized
- Finding product documentation

Audience

McAfee documentation is carefully researched and written for the target audience.

The information in this guide is intended primarily for:

- **Administrators** — People who implement and enforce the company's security program.
- **Users** — People who are responsible for configuring the product options on their systems, or for updating their systems.

Conventions

This guide uses the following typographical conventions.

Book title or *Emphasis*	Title of a book, chapter, or topic; introduction of a new term; emphasis.
Bold	Text that is strongly emphasized.
User input or Path	Commands and other text that the user types; the path of a folder or program.
Code	A code sample.
User interface	Words in the user interface including options, menus, buttons, and dialog boxes.
Hypertext blue	A live link to a topic or to a website.
Note	Additional information, like an alternate method of accessing an option.
Tip	Suggestions and recommendations.
Important/Caution	Valuable advice to protect your computer system, software installation, network, business, or data.
Warning	Critical advice to prevent bodily harm when using a hardware product.

How this guide is organized

This document is meant as a reference to use along with the VirusScan Console and ePolicy Orchestrator user interfaces. It also describes, in order, how you should approach protecting your system from malware using VirusScan Enterprise. To describe that process, this document is separated into four major parts, plus an appendix:

- **Part I — Prevention: Avoiding Threats —** The best way to protect your system is to keep any malware from ever gaining access to your system. This part of the document describes the following:
  - Protecting your systems' access points, memory from overflow errors, and unwanted programs.
  - Detection definitions and how they are used to protect your system and the importance of updating these definitions on a regular basis.
  - Excluding files, folders, and disks from scanning.
  - Using scheduled task to periodically scan your system and update the files used by VirusScan Enterprise.
- **Part II — Detecting: Finding Threats —** Files that are opened or copied from other file systems or the Internet might provide access to your system. Also, application programming interface (API) calls and scripts can pose a threat to your system. These threats are found during the following VirusScan Enterprise scan processes:
  - On-access scanning — Scans a file for malware when the file is read or written to disk, it also protects boot sectors, scans memory of processes already running, detects cookies, and protects against unwanted programs.
  - On-demand scanning — Scans the entire system for threats on a scheduled basis or as needed when started from the VirusScan Console.
  - Email on-delivery and on-demand scanning — Protects against malware arriving through email in Microsoft Outlook and Lotus Notes.
  - Buffer overflow protection — Analyzes API calls made by certain processes, to confirm they do not attempt to overwrite adjacent data in the memory buffer.
  - ScriptScan — Finds threats from browsers or other applications accessed that use the Windows Script Host.
- **Part III — Response: Handling Threats —** VirusScan Enterprise can be configured to perform any of the following steps, when a threat is found:
  - Deny Access to the threat or take no further action.
  - Delete or Clean the threat. When either of these actions is taken a copy of the original file is stored in the Quarantine folder.

  NOTE: For any detection, you can configure VirusScan Enterprise to notify the user or not.
- **Part IV — Monitoring, Analyzing, and Fine-Tuning Your Protection —** Once your protection is up and running, you should monitor your system using ePolicy Orchestrator queries and reports. Then you could decide to make changes to your security settings in order to increase or reduce the amount of system protection. Alternatively, you might also use VirusScan Console logs and Simple Network Management Protocol (SNMP) traps to monitor your systems.
- **Appendix —** Describes some additional features you should be aware of when using VirusScan Enterprise. For example, VirusScan Enterprise command-line options, connecting to remote systems through VirusScan Enterprise, and more.

Finding product documentation

McAfee provides the information you need during each phase of product implementation, from installing to using and troubleshooting. After a product is released, information about the product is entered into the McAfee online KnowledgeBase.

1 Go to the McAfee Technical Support ServicePortal at http://mysupport.mcafee.com.

2 Under **Self Service**, access the type of information you need:

To access...	Do this...
User documentation	**1** Click **Product Documentation**. **2** Select a **Product**, then select a **Version**. **3** Select a product document.
KnowledgeBase	• Click **Search the KnowledgeBase** for answers to your product questions. • Click **Browse the KnowledgeBase** for articles listed by product and version.

Getting Started

Understanding the components of McAfee® VirusScan® Enterprise 8.8 software, and the order you should use to configure the software helps you protect your system from threats.

Contents

- Introducing VirusScan Enterprise
- Components and how they interact
- The importance of creating a security strategy
- VirusScan Console and ways to access it
- What to do first

Introducing VirusScan Enterprise

As soon as the VirusScan Enterprise software is installed, it begins protecting your system from threats. You can increase your protection if you understand what the software does, what is new in this release, and its major components.

What it is and does

VirusScan Enterprise offers easily scalable protection, fast performance, and a mobile design to protect your environment from the following:

- Viruses, worms and Trojan horses
- Access point violations and exploited buffer overflows
- Potentially unwanted code and programs

It detects threats, then takes the actions you configured to protect your environment.

You can configure the software as a standalone product or you can use McAfee® ePolicy Orchestrator® software version 4.0 and later, to manage and enforce VirusScan Enterprise policies, then use queries and dashboards to track activity and detections.

NOTE: This document addresses using ePolicy Orchestrator 4.0, 4.5, and 4.6. For information about using these versions of ePolicy Orchestrator, see that version's product documentation.

What is new

This release includes the following new features:

- Enhanced performance.
- Allows ePolicy Orchestrator 4.5 and 4.6 to manage your VirusScan Enterprise systems.
- A new ScriptScan URL exclusion feature allows you to configure exclusions instead of manually editing the registry.

- The AntiSpyware Enterprise Module has been fully integrated into the VirusScan Enterprise 8.8 software.
- Support for Outlook 2010 email scanning.
- Support for Lotus Notes 8.0x through 8.5.1 email scanning.

Components and how they interact

As an administrator and user of VirusScan Enterprise, you should be familiar with its components and connections. The following figure shows these components for a basic environment.

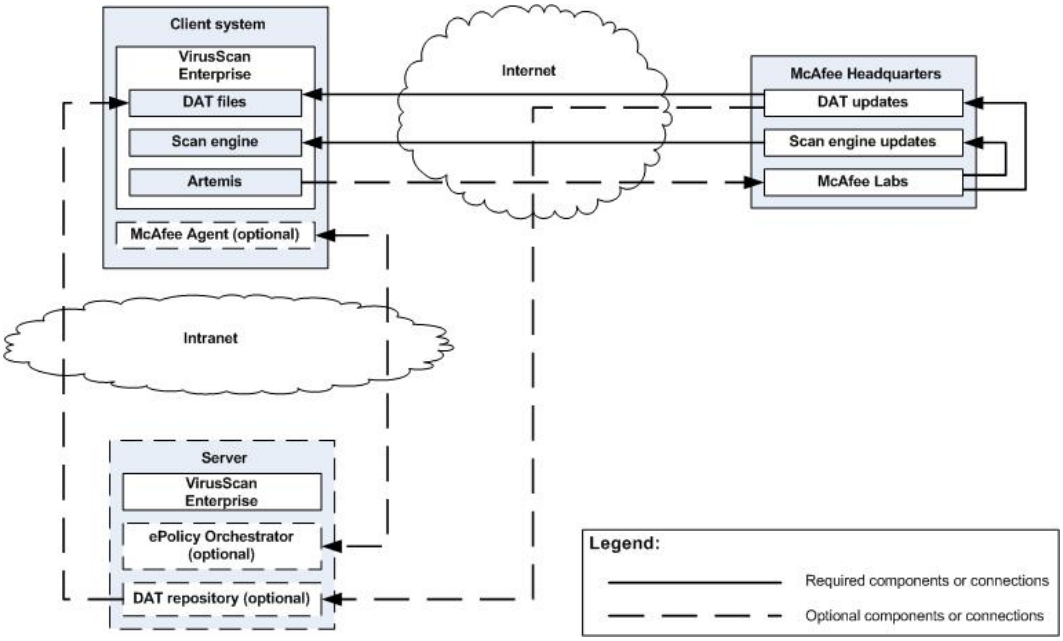


Figure 1: VirusScan Enterprise components

Client system

This is where VirusScan Enterprise and optional McAfee Agent are installed and configured.

- **DAT files** — Detection definition files, also called malware signatures, work with the scanning engine to identify and take action on threats.
- **Scan engine** — Used to scan the files, folders, and disks on the client computer and compares them to the information in the DAT files for known viruses.

  NOTE: DAT files and scan engine are updated as needed using the Internet connection to McAfee Headquarters, or using the optional connections over the Enterprise Intranet to a designated server.

- **Artemis (Heuristic network check for suspicious files)** — Looks for suspicious programs and DLLs running on client systems that are protected by VirusScan Enterprise. When the real-time malware defense detects a suspicious program, it sends a DNS request containing a fingerprint of the suspicious file to a central database server hosted by McAfee Labs.
- **McAfee Agent** (optional) — Provides secure communication between McAfee managed products and McAfee ePolicy Orchestrator server. The agent also provides local services like updating, logging, reporting events and properties, task scheduling, communication, and policy storage.

McAfee Headquarters

McAfee Headquarters, home to McAfee Labs and McAfee Technical Support, provides the following VirusScan Enterprise services:

- **DAT updates** — Stored on a McAfee central database server, and using AutoUpdate, these DAT update files are copied to the VirusScan Enterprise clients or optional DAT repositories to provide information to fight known threats and new lists of known viruses as they are found in real time.
- **Scan engine updates** — Stored on a central database server, scan engine updates are downloaded as needed to keep the VirusScan Enterprise scan engine up-to-date.
- **McAfee Labs** — This threat library has detailed information on virus, Trojan, hoax, and potentially unwanted program (PUP) threats — where they come from, how they infect your system, and how to handle them. The Artemis feature sends the fingerprint of the suspicious file to McAfee Labs, where they analyze the file and determine what action to take.

Server

The optional server uses the following components to manage and update many client systems remotely:

- **ePolicy Orchestrator** — Centrally manages and enforces VirusScan Enterprise policies, then uses queries and dashboards to track activity and detections.

  NOTE: This document addresses using ePolicy Orchestrator 4.0, 4.5, and 4.6. For information about ePolicy Orchestrator, see the product documentation for your version.

- **DAT repository** — Retrieves the DAT updates from the McAfee download site. From there, DAT files can be replicated throughout your organization, providing access for all other computers. This minimizes the amount of data transferred across your network by automating the process of copying updated files to your share sites.

The importance of creating a security strategy

Protecting your client systems from viruses, worms, and Trojan files using VirusScan Enterprise requires a well-planned strategy: defining threat prevention and detection, response to threats, and ongoing analysis and tuning.

Prevention — avoiding threats

Define your security needs to ensure that all of your data sources are protected, then develop an effective strategy to stop intrusions before they gain access to your environment. Configure these features to prevent intrusions:

- User Interface Security — Set display and password protection to control access to the VirusScan Enterprise user interface.
- Access Protection — Use access protection rules to protect your computer from undesirable behavior with respect to files, registry, and ports.
- Buffer Overflow Protection — Prevent abnormal programs or threats from overrunning the buffer's boundary and overwriting adjacent memory while writing data to a buffer. These exploited buffer overflows can execute arbitrary code on your computer.
- Unwanted Program Protection— Eliminate potentially unwanted programs such as spyware and adware from your computer.

Detection — finding threats

Develop an effective strategy to detect intrusions when they occur. Configure these features to detect threats:

- Update Task — Get automatic updates of DAT and scanning engine from the McAfee download website.
- On-Access Scanner— Detect potential threats from any possible source as files are read from or written to disk. You can also scan for potentially unwanted cookies in the cookies folder.
- On-Demand Scan Tasks — Detect potential threats using immediate and scheduled scan tasks. You can also scan for potentially unwanted cookies and spyware-related registry entries that were not previously cleaned.
- On-Delivery and On-Demand Email Scanner — Detect potential threats on Microsoft Outlook email clients using on-delivery scanning of messages, attachments, and public folders. Detect potential threats on Lotus Notes email clients when messages are accessed.
- Quarantine Manager Policy — Specify the quarantine location and the length of time to keep quarantined items. Restore quarantined items as necessary.

Response — handling threats

Use product log files, automatic actions, and other notification features to decide the best way to handle detections.

- Actions — Configure features to take action on detections.
- Log files — Monitor product log files to view a history of detected items.
- Queries and dashboards — Use ePolicy Orchestrator queries and dashboards to monitor scanning activity and detections.

Tuning — monitoring, analyzing, and fine-tuning your protection

After initially configuring VirusScan Enterprise, it is always a good practice to monitor and analyze your configuration. This can improve your system and network performance, plus enhance your level of virus protection, if needed. For example, the following VirusScan Enterprise tools and features can be modified as part of your monitoring, analyzing, and fine-tuning processes:

- Log files (VirusScan Console) — View a history of detected items. Analyzing this information could tell you if you need to enhance your protection or change the configuration to improve system performance.
- Queries and dashboards (ePolicy Orchestrator console) — Monitor scanning activity and detections. Analyzing this information could tell you if you need to enhance your protection or change the configuration to improve system performance.
- Scheduled tasks — Modify tasks (like AutoUpdate) and scan times to improve performance by running them during off-peak times.
- DAT repositories — Reduce network traffic over the enterprise Internet or intranet by moving these source files closer to the clients needing the updates.
- Modifying the scanning policies — Increase performance or virus protection depending on your analysis of the log files or queries. For example, configuring exclusions, when to use

high and low risk profile scanning, and when to disable scan on write can all improve performance.

CAUTION: Failure to enable **When reading from disk** scanning leaves your system unprotected from numerous malware attacks.

VirusScan Console and ways to access it

The VirusScan Console is the interface for the standalone version of the program's activities. You use it to configure, monitor, and update the product.

NOTE: This information applies only to the standalone version of the product, not the managed ePolicy Orchestrator version.

VirusScan Console and how it works

After you understand what VirusScan Enterprise does and its components, you need to understand how to access its features. Use one of these methods to open the VirusScan Enterprise 8.8 Console:

- From the **Start** menu, select **Programs | McAfee | VirusScan Console**.
- Right-click the VirusScan Enterprise shield icon in the system tray, then select **VirusScan Console**.

Menu bar

Use the menu items to create tasks, configure properties, and access additional information.

- **Task** — Create and configure tasks such as scanning for threats or updating the DAT files.
- **Edit** — Copy, paste, delete, or rename the selected task.
- **View** — Display the Toolbar and Status bar and refresh the display.
- **Tools** — Configure interface options for users, lock or unlock user interface security, configure alerts, access the event viewer, open a remote console if you have administrator rights, import or edit the repository list, and roll back the DAT files.
- **Help** — Access online Help topics, the Threat Library on the McAfee Labs website, the Submit a Sample website, and the Technical Support website. You can also repair the product installation and view the **About** dialog box for copyright information and which versions of the product, license, definition files, scanning engine, extra driver, and patch are installed.

NOTE: Each item on the menu has an associated shortcut key. On some operating systems, these shortcut keys might not be available unless you use F10 or ALT to access the menus.

Toolbar

Use the icons to access these commonly used commands:

- Display properties of the selected task.
- Start the selected task.
- Stop the selected task.
- Copy the selected task.
- Paste the selected task.

- Delete the selected task.
- Configure alerting properties.
- Launch the event viewer.
- Access the Information Library on the McAfee Labs website.
- Connect to a remote computer if you have administrator rights.
- Create a new on-demand scan.

Task list

Displays the default tasks and any new tasks that you create, as well as the status and last result for each task.

Status bar

Displays the status of the current activity.

Using right-click features

Use right-click features for quick access to commonly used actions such as creating new tasks, viewing task statistics and logs, opening task property pages, scanning a specific file or folder, or performing an immediate update task.

Feature descriptions

Location	Description	Examples
The Console	Right-click the VirusScan Console to display right-click features. These features vary depending on whether you selected a task in the task list and which task you select.	• In the console, right-click a task to access its properties. Depending on which task you select, you might also be able to start, stop, enable or disable it, and view statistics and the activity log. In some cases, you can also rename or delete a task. • Right-click a blank area in the console to create a new scan or update task.
Windows Explorer	Right-click a selected file or folder to perform an immediate **Scan for threats**. You can select an action for the scan: • **Clean** — Report and clean the detected item. • **Continue** —- Report the detection and continue scanning.	Perform an immediate scan on a file or folder that you suspect is threatened. When you start the scan, the on-demand scanner is invoked directly with all scan settings enabled. Select the action option. You cannot customize any other scan settings.
The system tray	See *System tray icons and how they work* for VirusScan Enterprise icon right-click descriptions.	

System tray icons and how they work

Once VirusScan Enterprise is installed, one of the following icons appears in the Windows system tray, if you configured this feature during the installation process.

"M" in a shield icon

Appears on ePolicy Orchestrator managed systems using McAfee Agent version 4.5 or later. It displays:

- **Status** — This icon does not change to indicate access protection trigger alerts or if on-access scanning is disabled on ePolicy Orchestrator managed clients with McTray version 2.x or later (with McAfee Agent 4.5 or later). The status changes are shown as tool tips.
- **Tool tips** — The icon tool tips include:
  - McAfee Status: OK — Normal. Options indicate:
    - **View Security Status** — Displays a check mark.
    - **Quick Settings | On access Virus Scanning** - On — Displays a check mark.
  - McAfee Status: Issue Detected — On-access scan disabled. Options indicate:
    - **View Security Status** — Displays an exclamation point.

      NOTE: Click **View Security Status** to display the McAfee Security Status dialog box with Issue — "On-Access Scan disabled" in the Status column.

    - **Quick Settings | On access Virus Scanning** - Off — No check mark is displayed.
  - McAfee Status: Issue Detected — Access protection event triggered. Options indicate:
    - **View Security Status** — Displays an exclamation point.

      NOTE: Click **View Security Status** to display the McAfee Security Status dialog box with Issue — "Please see Access Protection Log" in the Status column.

    - **Quick Settings | On access Virus Scanning** - On — Displays a check mark.
- **Menu options** — The right-click menu options include:
  - **Update Security** — Updates the DAT files and any other changes.
  - **Quick settings** — Displays:
    - **On-Access Scan Properties** — Opens the on-access scanner properties.
    - **On-Access Scanning on or off** — Toggles the on-access scanner.
    - **On-Access Scan Properties** — Opens the on-access scanner properties.
    - **On-Access Scan Messages** — Opens the on-access scan statistics or messages.
    - **Open On-Access Protection Log File** — Opens the log file.
  - **Manage Features | VirusScan Enterprise** — Opens the VirusScan Console.
  - **Scan Computer for | Threats** — Starts an immediate scan.
  - **View Security Status** — Displays the McAfee Security Status dialog box.
  - **McAfee Agent Status Monitor** — Displays the McAfee Security Status Monitor dialog box.
  - **About** — Opens the About dialog box.

"M" in a box

Appears on standalone systems using McTray 1.0 and on ePolicy Orchestrator managed systems using McAfee Agent version 4.0 that use McTray 1.0. It displays:

- **Status** — Displays include:
  - "M" in a box — Normal status.
  - "M" in a box with an exclamation point — Access protection violation event is triggered or on-access scanning is disabled. Right-click menu options indicate:

  - "V" in a shield with circle and line — Indicates on-access scanning is disabled.
  - "V" in a shield with red outline — Indicates on-access scanning is enabled, but see the Access Protection log file.
- **Tool tip** — Displays "McAfee".
- **Menu options** — The right-click menu options include:
  - **VirusScan Console** — Opens the VirusScan Console.
  - **Disable or Enable On-Access Scanner** — Toggles the on-access scanner.
  - **On-Access Scan Properties** — Opens the on-access scanner properties.
  - **On-Access Scan Statistics** — Opens the on-access scan statistics.
  - **On-Access Scan Messages** — Opens the on-access scan statistics or messages.
  - **On-Demand Scan** — Creates a one-time configurable on-demand scan.
  - **Update Now** — Performs an immediate update task.
  - **About VirusScan Enterprise** — Opens the About dialog box.

"V" in a shield icon

Appears on standalone systems that do not have McTray 1.0. It displays:

- **Status** — Displays include:
  - "V" in a shield — Normal.
  - "V" in a shield with circle and line — Indicates on-access scanning is disabled.
  - A "V" in a shield with red outline — Indicates on-access scanning is enabled, but see Access Protection log file.
- **Tool tip**s — The tool tips include:
  - "V" in a shield — McAfee OAS: enabled, normal.
  - "V" in a shield with circle and line — McAfee OAS: disabled.
  - "V" in a shield with red outline — McAfee OAS: enabled, see the Access Protection Log.
- **Menu options** — The right-click menu options include:
  - **Update Security** — Updates DAT files and any other changes.
  - **Quick settings** — Displays:
    - **On-Access Scan Properties** — Opens the on-access scanner properties.
    - **On-Access Scanning on or off** — Toggles the on-access scanner.
    - **On-Access Scan Messages** — Opens the on-access scan statistics or messages.
    - **Open On-Access Protection Log File** — Opens the log file.
  - **Manage Features | VirusScan Enterprise** — Opens the VirusScan Console.
  - **Scan Computer for | Threats** — Starts an immediate scan.
  - **View Security Status** — Displays the McAfee Security Status dialog box.

- **McAfee Agent Status Monitor** — Displays the McAfee Security Status Monitor dialog box.
- **About** — Opens the About dialog box.

What to do first

When the software is installed, it uses the DAT files packaged with the product, which provide general security for your environment. McAfee recommends you get the latest DAT files and customize the configuration to meet your requirements before you deploy the product to client systems.

Take these actions immediately after installing the product.

1 **Set user interface security**. Configure the display and password options to prevent users from accessing specific components or the entire VirusScan Enterprise user interface. See *Controlling Access to the User Interface* for more information.

2 **Update DAT files**. Perform an **Update Now** task to ensure that you have the most current DAT files. See *Updating detection definitions* for more information.

3 **Prevent intrusions**. Configure these features to prevent potential threats from accessing your systems:

- **Access Protection**. Configure access protection rules to prevent unwanted changes to your computer and enable the option to prevent McAfee processes from being terminated. See *Protecting your system access points* for more information.
- **Buffer Overflow Protection**. Enable buffer overflow detection and specify exclusions. See *Blocking buffer overflow exploits* for more information.
- **Unwanted Programs Policy**. Configure the policy that the on-access, on-demand, and email scanners use to detect potentially unwanted programs. Select unwanted program categories to detect from a predefined list, then define additional programs to detect or exclude. See *Restricting potentially unwanted programs* for more information.

4 **Detect intrusions**. Configure these features to detect potential threats on your systems, then notify you and take action when detections occur:

- **AutoUpdate**. Configure update tasks to get the most current DAT files, scanning engine, and product upgrades. See *Updating detection definitions* for more information.
- **On-Access Scanner**. Configure the scanner to detect and take action on potential threats as the threats are accessed in your environment. Enable scanning of unwanted programs and scan for cookies in the cookies folder. See *Scanning items on-access* for more information.
- **On-Demand Scanner**. Configure scan tasks to detect and take action on potential threats in your environment. Enable scanning of unwanted programs and scan for cookies in the cookies folder and potentially unwanted spyware-related registry entries that were not previously cleaned. See *Scanning items on-demand* for more information.
- **Email Scanners**. Configure the on-delivery and on-demand scanning of Microsoft Outlook and Lotus Notes email clients. Enable scanning of unwanted programs. See *Scanning email on-delivery and on-demand* for more information.

5 **Send alerts and quarantine threats.** Configure these features to alert you when detections occur and manage quarantined items:

- **Alerts and Notifications**. Configure how and when you receive detection notifications and alerts. See *Configuring alerts and notifications* for more information.

- **Quarantine Manager Policy**. Configure the location of the quarantine folder and the number of days to keep quarantined items before automatically deleting them. See *Quarantined items* for more information.

Part I - Prevention: Avoiding Threats

Prevention is the first step in a protection strategy, to keep threats from gaining access to your system.

Contents

- Access protection
- Protecting your system access points
- Blocking buffer overflow exploits
- Restricting potentially unwanted programs
- Updating detection definitions
- Excluding scan items
- Using scheduled tasks

Access protection

Preventing threat access to your client system is your first line of defense against malware. The Access Protection feature of VirusScan Enterprise compares an action being requested against a list of configured rules. Each rule can be configured to block or report, or block *and* report access violations when they occur.

Access protection prevents unwanted changes to your computer by restricting access to specified ports, files, shares, registry keys, and registry values. It also protects McAfee processes by preventing users from stopping them. This protection is critical before and during outbreaks.

This feature uses predefined rules and user-defined rules to specify which items can and cannot be accessed. Each rule can be configured to block or report, or block and report access violations when they occur. Predefined rules and categories can be updated from the McAfee update sites.

NOTE: The on-access scanner, which detects access violations, must be enabled to detect attempts to access ports, files, shares, and registry keys and registry values.

How threats gain access

The most common ways threats gain access to your system include:

- **Macros** — As part of word processing documents and spreadsheet applications.
- **Executable files** — Seemingly benign programs can include viruses along with the expected program. For example, some common file extensions are .EXE, .COM, .VBS, .BAT, .HLP and .DLL.
- **Email** — Jokes, games, and images as part of email messages with attachments.
- **Scripts** — Associated with web pages and emails, scripts such as ActiveX and JavaScript, if allowed to run, can include viruses.

- **Internet Relay Chat (IRC) messages** — Files sent along with these messages can easily contain malware as part of the message. For example, automatic startup processes can contain worms and Trojan threats.
- **Browser and application Help files** — Downloading these Help files exposes the system to embedded viruses and executables.
- **Combinations of all these** — Sophisticated malware creators combine all of these delivery methods and even embed one piece of malware within another to try and access your computer.

Contents

▸ How access threats are stopped
▸ Control access to the user interface

How access threats are stopped

By enabling or changing the configuration of the Access Protection feature you can configure anti-spyware protection, anti-virus protection, common protection, virtual machine protection, and define your own rules of protection. Following is the basic process VirusScan Enterprise uses to provide access protection.

Steps taken when a threat occurs

1. A user or process tries to take an action.
2. That action is examined by Access Protection according to the defined rules.
3. When a rule is broken, the action requested by the user or process is managed using the information in the rules configured. For example, the action causes nothing to happen, it is blocked, or it is blocked and a report is sent.
4. The Access Protection log file is updated, and an event is generated for the ePolicy Orchestrator Global Administrator.

Example of an access threat

1. A user downloads a program, MyProgram.exe, from the Internet.

   NOTE: For this example, MyProgram.exe is not malware.

2. The user launches the program and it seems to launch as expected.
3. MyProgram.exe then launches a child process called AnnoyMe.exe and it attempts to modify the operating system to ensure it always loads on startup.
4. Access Protection processes the request and matches it against an existing rule that is configured to block and report.
5. AnnoyMe.exe is denied access when it attempts to modify the operating system, Access Protection logs the details of the attempt, and it generates an alert to the ePolicy Orchestrator Global Administrator.

Log report and alerts generated

This is an example of an Access Protection log entry.

2/10/2010 11:00AM Blocked by Access Protection rule TestDomain\TestUser C:\Users\TestUser\Desktop\AnnoyMe.exe \REGISTRY\MACHINE\SOFTWARE\Microsoft\Window\CurrentVersion\Run\ Prevent programs registering to autorun

This table describes the data in the previous Access Protection log entry:

Log entry	Description
2/10/2010	Date
11:00AM	Time
Blocked by Access Protection rule	Action taken
TestDomain\TestUser	Credentials
C:\Users\TestUser\Desktop\AnnoyMe.exe	Process name that breeched the rule
\REGISTRY\MACHINE\SOFTWARE\Microsoft...	Location the process tried to access
Prevent programs registering to autorun	Access Protection rule that was triggered

Similar information is available using ePolicy Orchestrator queries. For details, refer to *Access queries and dashboards*.

Control access to the user interface

Setting security for the interface on client computers is an important part of protecting your environment.

As an administrator, you can:

- Control the access users have to the VirusScan Enterprise interface.
- Set a password to prevent users from accessing or changing selected features.
- Lock and unlock the user interface as necessary.

Contents

▸ How setting a password affects users
▸ Configuring user interface security settings

How setting a password affects users

Set a user interface password to deter users with malicious intent.

When you password-protect the user interface on client computers, the following users are affected:

- **Non-administrators** — *Users without administrator rights*. Non-administrators run all VirusScan Enterprise applications in read-only mode. They can view some configuration parameters, run saved scans, and run immediate scans and updates. They cannot change any configuration parameters, create, delete, or modify saved scan or update tasks.
- **Administrators** — *Users with administrator rights*. Administrators must type the password to access the protected tabs and controls in read/write mode. If a password is not provided for a protected item, they view it in read-only mode.

Configuring user interface security settings

Use the General Options Policies user interface properties to configure the display and password options available to the users.

CAUTION: Consider carefully the security ramifications before you make changes to these properties. These options let you restrict or allow users to make changes to their security configuration and could leave systems unprotected from numerous malware attacks.

Configure the General Options Policies user interface properties with these user interface consoles.

ePolicy Orchestrator 4.5 or 4.6

Configure the General Options Policies user interface properties.

Task

For option definitions, click **?** on each tab.

1. Click **Menu | Policy | Policy Catalog**, then from the Product list select **VirusScan Enterprise 8.8.0**. The Category list displays the policy categories for VirusScan Enterprise 8.8.0.
2. Edit an existing policy or create a new policy:
   Edit an existing policy
   a. From the **Category** list, select the policy category.
   b. From the **Actions** column, click **Edit Setting** to open the policy configuration page.
   Create a new policy
   a. Click **Actions | New Policy** to open New Policy dialog box.
   b. From the **Category** list, select an existing policy.
   c. From the **Create a new policy based on this existing policy** list, select one of the settings.
   d. Type a new policy name.
   e. Type any notes, if required.
   f. Click **OK**. The new policy appears in the list of existing policies.
   g. From the **Actions** column of the new policy, click **Edit Setting** to open the policy configuration page.
3. From the **Settings for** list, select **Workstation** or **Server**.
4. On the **Display Options** tab, configure which VirusScan Enterprise system tray icons the users see, if they can connect to remote systems, and the user's language option settings.
5. On the **Password Options** tab, configure which VirusScan Enterprise tasks and user interface options the users can change with the correct password.

ePolicy Orchestrator 4.0

Configure the General Options Policies user interface properties.

Task

For option definitions, click **?** on each tab.

1. Click **Systems | Policy Catalog**, then from the Product list select **VirusScan Enterprise 8.8.0**. The Category list displays the policy categories for VirusScan Enterprise 8.8.0.
2. Edit an existing policy or create a new policy:
   Edit an existing policy
   a. From the **Category** list, select the policy category.
   b. From the **Actions** column, click **Edit** to open the policy configuration page.
   Create a new policy

a Click **New Policy** to open New Policy dialog box.

b From the **Create a new policy based on this existing policy** list, select one of the settings.

c Type a new policy name.

d Click **OK**. The new policy appears in the list of existing policies.

3 From the **Settings for** list, select **Workstation** or **Server**.

4 On the **Display Options** tab, configure which VirusScan Enterprise system tray icons the users see, if they can connect to remote systems, and the user's language option settings.

5 On the **Password Options** tab, configure which VirusScan Enterprise tasks and user interface options the users can change with the correct password.

VirusScan Console

Configure the General Options user interface properties.

Task

For option definitions, click **Help** on each tab.

1 Click **Tools | General Options** to open the General Options configuration dialog box.

2 On the **Display Options** tab, configure which VirusScan Enterprise system tray icons the users see, if they can connect to remote systems, and the user's language option settings.

3 On the **Password Options** tab, configure which VirusScan Enterprise tasks and user interface options the users can change with the correct password.

Protecting your system access points

Access protection prevents unwanted changes to your computer by restricting access to specified ports, files, shares, registry keys, and registry values. It also protects McAfee processes by preventing users from stopping them. This protection is critical before and during outbreaks.

This feature uses predefined rules and categories and user-defined rules to specify which items can and cannot be accessed. Each rule can be configured to block and report access point violations when they occur. Predefined rules and categories are subject to content updates via the McAfee update sites.

Contents

- How access protection rules are defined
- Access point violations and how VirusScan Enterprise responds
- Types of user-defined rules
- Configuring access protection settings

How access protection rules are defined

Rules are separated into these types and provide these levels of protection.

Rule type descriptions

Rule type	Description
Anti-virus	These preconfigured rules protect your computer from common behaviors of malware threats. You can enable, disable, and change the configuration, but you cannot delete these rules. Two rule examples are: • Prevent disabling or changing of critical processes, remote creation or modification of executable files, hijacking of executable files, Windows Process spoofing, and mass mailing worms from sending mail. • Protect phone book files from password and email stealers. These protection levels apply to anti-virus rules: • **Standard Protection** • **Maximum Protection** • **Outbreak Control**
Common	These preconfigured rules prevent modification of commonly used files and settings. You can enable, disable, and change the configuration, but you cannot delete these rules. Three rule examples are: • Prevent modification of McAfee files and settings. • Protect Mozilla and Firefox files and settings, Internet Explorer settings, and network settings. • Prevent installation of Browser Helper Objects and automatically running programs from the Temp folder. These protection levels apply to the common rules: • **Standard Protection** • **Maximum Protection**
Virtual Machine Protection	These preconfigured rules prevent termination of VMWare processes and modification of VMWare files. You can enable, disable, and change the configuration, but you cannot delete these rules. Rule examples are: • Prevent termination of VMWare Processes. • Prevent modification of VMWare workstation, server, or virtual machine files.
User-defined	These custom rules supplement the protection provided by the **Anti-virus** and **Common** rules.
Anti-spyware	Rule examples are: • Prevent Internet Explorer favorites and settings. • Prevent programs from running and execution of scripts from the Temp folder.

Protection level descriptions

Protection level	Description
Standard	Anti-virus and common rules that protect some critical settings and files from being modified, but generally allow you to install and execute legitimate software.
Maximum	Anti-virus and common rules that protect most critical settings and files from being modified. This level provides more protection than Standard, but might prevent you from installing legitimate software. If you cannot install software, we recommend that you disable the **Access Protection** feature first, then enable it again after installation.

Protection level	Description
Outbreak control	Anti-virus rules that block destructive code from accessing the computer until a DAT file is released. These rules are preconfigured to block access to shares during an outbreak.

Access point violations and how VirusScan Enterprise responds

An access violation occurs when a restricted user or process tries to start, stop, or access restricted components of your computer.

When an access point violation occurs:

- Information is recorded in the log file, if you selected the **Report** option for the rule that detected the violation.
- The event is recorded in the local event log and to SNMP, if you configured **Alert Properties** to do so.
- The event is reported to Alert Manager and ePolicy Orchestrator, if those products are configured to do so.
- A **Block** and **Report** action for a rule determine what happens when a rule detects a violation.
- On the standalone client system, a red frame surrounds the system tray icon and remains visible for 30 minutes, unless you reset it.

  NOTE: To reset the icon, open the **Access Protection Log File** from the system tray icon. Opening the log file by any other method does not reset the icon to its normal state.

Types of user-defined rules

When you configure a new access protection user-defined rule you are allowed to create port blocking, file and folder blocking, and registry blocking rules.

The following table describes these rules.

Rule descriptions

Rule	Description
Port Blocking Rule	Blocks incoming or outgoing network traffic on specific ports or ranges of ports. NOTE: When you block a port, Transmission Control Protocol (TCP) and User Datagram Protocol (UDP) accesses are blocked. NOTE: When you block a port any protocol using that port or range of ports is blocked. For example, Transmission Control Protocol (TCP) and User Datagram Protocol (UDP) accesses are blocked.
File/Folder Blocking Rule	Blocks write access to files and folders, file execution, plus new file creation and file deletion. NOTE: Once you restrict access to a file or folder, the restriction remains in place until the administrator removes it. This helps prevent intrusions and stops them from spreading during an outbreak.
Registry Blocking Rule	Protects registry keys or values by blocking these actions: write to, create, or delete.

Configuring access protection settings

Use **Access Protection Policies** to protect your system's access points and prevent termination of McAfee processes.

CAUTION: Failure to enable access protection to prevent McAfee services from being stopped leaves your system unprotected from numerous malware attacks.

There are two types of access-protection rules you can configure.

- **Predefined rules** — Allow you to:
  - Open the access-protection rule category in one of the user interface consoles.
  - Select the block and report action to take if the rule is broken.
- **User-defined rules** — Allow you to:
  - Create the user-defined rule category with one of the user interface consoles.
  - Choose which type of blocking the rule enforces: port blocking, file and folder blocking, or registry blocking.
  - Configure the rule details.
  - Save the rule and modify it in the future, if needed.

Tasks

- Configuring predefined rules
- Configuring user-defined rules
- Port blocking rule options
- File and folder blocking rule options
- Registry blocking rule options
- Include or exclude specific process options
- Removing user-defined rules

Configuring predefined rules

Use predefined rules to protect your computer from unwanted changes. These rules can be enabled and edited, but they cannot be deleted.

The predefined access protection rules include:

- Anti-spyware Standard Protection
- Anti-spyware Maximum Protection
- Anti-virus Standard Protection
- Anti-virus Maximum Protection
- Anti-virus Outbreak Control
- Common Standard Protection
- Common Maximum Protection
- Virtual Machine Protection

Refer to *How access protection rules are defined* for details about these predefined access protection rules.

Configure the predefined access protection rules using one of these user interface consoles.

ePolicy Orchestrator 4.5 or 4.6

From the Access Protection Policies, configure the predefined access-protection rules.

Task

For option definitions, click **?** in the interface.

1 Click **Menu | Policy | Policy Catalog**, then from the Product list select **VirusScan Enterprise 8.8.0**. The Category list displays the policy categories for VirusScan Enterprise 8.8.0.

2 Edit an existing policy or create a new policy:
Edit an existing policy

   a From the **Category** list, select the policy category.

   b From the **Actions** column, click **Edit Setting** to open the policy configuration page.

Create a new policy

   a Click **Actions | New Policy** to open New Policy dialog box.

   b From the **Category** list, select an existing policy.

   c From the **Create a new policy based on this existing policy** list, select one of the settings.

   d Type a new policy name.

   e Type any notes, if required.

   f Click **OK**. The new policy appears in the list of existing policies.

   g From the **Actions** column of the new policy, click **Edit Setting** to open the policy configuration page.

3 From the **Settings for** list, select **Workstation** or **Server**.

4 From the Access Protection Policy page, click the **Access Protection** tab to display the Access Protection Rules.

5 Select the one of the predefined rule categories in the left pane, then select the specific rule in the right pane.

6 Configure the **Block** or **Report** options, or both **Block** and **Report**.

7 Click **Edit** to configure **Rule Details**.

ePolicy Orchestrator 4.0

From the Access Protection Policies, configure the predefined access-protection rules.

Task

For option definitions, click **?** in the interface.

1 Click **Systems | Policy Catalog**, then from the Product list select **VirusScan Enterprise 8.8.0**. The Category list displays the policy categories for VirusScan Enterprise 8.8.0.

2 Edit an existing policy or create a new policy:
Edit an existing policy

   a From the **Category** list, select the policy category.

   b From the **Actions** column, click **Edit** to open the policy configuration page.

Create a new policy

   a Click **New Policy** to open New Policy dialog box.

b From the **Create a new policy based on this existing policy** list, select one of the settings.

c Type a new policy name.

d Click **OK**. The new policy appears in the list of existing policies.

3 From the **Settings for** list, select **Workstation** or **Server**.

4 From the Access Protection Policy page, click the **Access Protection** tab to display the Access Protection Rules.

5 Select the one of the predefined rule categories in the left pane, then select the specific rule in the right pane.

6 Configure the **Block** or **Report** options, or both **Block** and **Report**.

7 Click **Edit** to configure **Rule Details**.

VirusScan Console

From the Access Protection properties, configure the predefined access-protection rules.

Task

For option definitions, click **Help** in the interface.

1 From the **Task** list, right-click **Access Protection**, then click **Properties** to open the dialog box.

2 From the Access Protection Policy dialog box, click the **Access Protection** tab to display the Access Protection Rules.

3 Select the one of the predefined rule categories in the left pane, then select the specific rule in the right pane.

4 Configure the **Block** or **Report** options, or both **Block** and **Report**.

5 Click **Edit** to configure **Rule Details**.

Configuring user-defined rules

Create and edit user-defined rules to supplement the protection provided by the predefined rules.

Refer to *How access protection rules are defined* for details about the predefined access protection rules.

Create and edit the user-defined rules access protection rules using one of these user interface consoles.

ePolicy Orchestrator 4.5 or 4.6

From the Access Protection Policies, configure the user-defined access-protection rules.

Task

For option definitions, click **?** in the interface.

1 Click **Menu | Policy | Policy Catalog**, then from the Product list select **VirusScan Enterprise 8.8.0**. The Category list displays the policy categories for VirusScan Enterprise 8.8.0.

2 Edit an existing policy or create a new policy:

Edit an existing policy

a From the **Category** list, select the policy category.

b From the **Actions** column, click **Edit Setting** to open the policy configuration page.

Create a new policy

a Click **Actions | New Policy** to open New Policy dialog box.

b From the **Category** list, select an existing policy.

c From the **Create a new policy based on this existing policy** list, select one of the settings.

d Type a new policy name.

e Type any notes, if required.

f Click **OK**. The new policy appears in the list of existing policies.

g From the **Actions** column of the new policy, click **Edit Setting** to open the policy configuration page.

3 From the **Settings for** list, select **Workstation** or **Server**.

4 Select the **User-defined Rules** category in the left pane, then click **New** to open the **Select the new rule type** dialog box.

5 Select the rule type and click **OK**. Refer to *Types of user-defined rules* for details.
The access rule dialog box that appears depends on the rule type selected.

6 Configure these access rule details.

- **Network Port Access Protection Rule** — Refer to the options table in *Port blocking rule options*.
- **File/Folder Access Protection Rule** — Refer to the options table in *File and folder blocking rule options*.
- **Registry Access Protection Rule** — Refer to the options table in *Registry blocking rule options*.

NOTE: To configure which processes to include and exclude, refer to *Include or exclude specific process options*.

7 Click **OK**.
The new user-defined rule appears in the right-hand pane under Block/Report/Rules. To modify the new rule, select it and click **Edit**.

ePolicy Orchestrator 4.0

From the Access Protection Policies, configure the user-defined access-protection rules.

Task

For option definitions, click **?** in the interface.

1 Click **Systems | Policy Catalog**, then from the Product list select **VirusScan Enterprise 8.8.0**. The Category list displays the policy categories for VirusScan Enterprise 8.8.0.

2 Edit an existing policy or create a new policy:
Edit an existing policy

a From the **Category** list, select the policy category.

b From the **Actions** column, click **Edit** to open the policy configuration page.

Create a new policy

a Click **New Policy** to open New Policy dialog box.

b From the **Create a new policy based on this existing policy** list, select one of the settings.

c Type a new policy name.

d Click **OK**. The new policy appears in the list of existing policies.

3 From the **Settings for** list, select **Workstation** or **Server**.

4 Select the **User-defined Rules** category in the left pane, then click **New** to open the **Select the new rule type** dialog box.

5 Select the rule type and click **OK**. Refer to *Types of user-defined rules* for details.
The access rule dialog box that appears depends on the rule type selected.

6 Configure these access rule details.

- **Network Port Access Protection Rule** — Refer to the options table in *Port blocking rule options*.
- **File/Folder Access Protection Rule** — Refer to the options table in *File and folder blocking rule options*.
- **Registry Access Protection Rule** — Refer to the options table in *Registry blocking rule options*.

NOTE: To configure which processes to include and exclude, refer to *Include or exclude specific process options*.

7 Click **OK**.
The new user-defined rule appears in the right-hand pane under Block/Report/Rules. To modify the new rule, select it and click **Edit**.

VirusScan Console

From the Access Protection properties, configure the user-defined access-protection rules.

Task

For option definitions, click **?** in the interface.

1 From the **Task** list, right-click **Access Protection**, then click **Properties** to open the dialog box.

2 Select the **User-defined Rules** category in the left pane, then click **New** to open the **Select New Type Rule** dialog box.

3 Select the rule type and click **OK**. Refer to *Types of user-defined rules* for details.
The access rule dialog box that appears depends on the rule type selected.

4 Configure these access rule details.

- **Network Port Access Protection Rule** — Refer to the options table in *Port blocking rule options*.
- **File/Folder Access Protection Rule** — Refer to the options table in *File and folder blocking rule options*.
- **Registry Access Protection Rule** — Refer to the options table in *Registry blocking rule options*.

NOTE: To configure which processes to include and exclude, refer to *Include or exclude specific process options*.

5 Click **OK**.
The new user-defined rule appears in the right-hand pane in the Rules column. To modify the new rule, select it and click **Edit**.

Port blocking rule options

Port blocking rules stop users from accessing specified inbound and outbound ports, and they prevent other computers from accessing the computer.

Option definitions

Option	Definition
Rule Name	Type the name for this rule.
Processes to include	Restrict access to the specified processes.
Processes to exclude	Allow access to the specified processes.
Starting Port	Specify the first port number. This can be a single port or the starting number of a range of ports. NOTE: If you block access to a port that is used by the McAfee Agent, or the Host Intrusion Prevention Agent, the agent's processes are trusted and are allowed to communicate with the blocked port. All other traffic not related to these agent processes is blocked.
Ending Port	Specify the last port number in a range of ports.
Inbound	Prevent systems on the network from accessing the specified ports.
Outbound	Prevent local processes from accessing the specified ports on the network.

File and folder blocking rule options

File and folder blocking rules prevent unauthorized users from altering, opening or deleting specified files or folders.

Option definitions

Option	Definition
Rule name	Type the name for this rule.
Processes to include	Restrict access to the specified processes.
Processes to exclude	Allow access to the specified processes.
File or folder name to block	Block access to the specified file or folder.
Browse file	Navigate to the file.
Browse folder	Navigate to the folder.
Read access to files	Block read access to the specified files.
Write access to files	Block write access to the specified files.
Files being executed	Block files from being executed in the specified folder.
New files being created	Block new files from being created in the specified folder.

Option	Definition
Files being deleted	Block files from being deleted from the specified folder.

Registry blocking rule options

Registry blocking rules prevent users and unauthorized programs from altering, opening, or deleting specified registry keys and values.

NOTE: When creating a registry blocking rule, use the best matching hive registry subtree abbreviation. For example, to block HKLM\System\CurrentControlSet\Services\MyService, choose the HKCCS hive rather than HKLM.

Option definitions

Option	Definition
Rule Name	Specify the name for this rule.
Processes to include	Restrict access to the specified processes.
Processes to exclude	Allow access to the specified processes.
Registry key or value to protect	Protect this registry key or value: • Select a root key or value from the drop-down list. • Type a key or value in the text box. Selecting the root key or value from the drop-down list is optional. Use either of these methods to specify the key or value: • Select the root key or value from the drop-down list, then type the remaining path to the key or value in the text box. • Type the full path to the key or value in the text box.
Rule type	Select the type of rule: • **Key** — This rule protects the specified key. • **Value** — This rule protects the specified value.
Write to key or value	Block writing to the specified key or value.
Create key or value	Block creating the specified key or value.
Delete key or value	Block deleting the specified key or value.

Include or exclude specific process options

To change the rule details, such as the name, and which process to include or exclude, use **Access Protection** and click **Edit**.

Option definitions

Option	Description
Rule Name	The name of this rule. For example, **Prevent registry editor and Task Manager from being disabled**.
Processes to include	Restrict access to these processes. Use the exact process name or use a wildcard to specify a broad range of processes such as *.EXE, then add exclusions for specific processes that are legitimate, such as SETUP.EXE. For example, specify * to include all processes.

Option	Description
Processes to exclude	Allow access to these processes. Use the exact process name. For example, specify these exclusions: avtask.exe, cfgwiz,exe, fssm32.exe, giantantispywar*, kavsvc.exe, mmc.exe, navw32.exe, nmain.exe, rtvscan.exe.

Removing user-defined rules

Remove rules that you created but no longer use.

Remove the user-defined rules using one of these user interface consoles.

ePolicy Orchestrator 4.5 or 4.6

From the Access Protection Policies, remove rules that you created but no longer use.

Task

For option definitions, click **?** or **Help** in the interface.

1. Click **Menu | Policy | Policy Catalog**, then from the Product list select **VirusScan Enterprise 8.8.0**. The Category list displays the policy categories for VirusScan Enterprise 8.8.0.
2. Edit an existing policy or create a new policy:
   Edit an existing policy
   a. From the **Category** list, select the policy category.
   b. From the **Actions** column, click **Edit Setting** to open the policy configuration page.
   Create a new policy
   a. Click **Actions | New Policy** to open New Policy dialog box.
   b. From the **Category** list, select an existing policy.
   c. From the **Create a new policy based on this existing policy** list, select one of the settings.
   d. Type a new policy name.
   e. Type any notes, if required.
   f. Click **OK**. The new policy appears in the list of existing policies.
   g. From the **Actions** column of the new policy, click **Edit Setting** to open the policy configuration page.
3. From the **Settings for** list, select **Workstation** or **Server**.
4. Select the **User-defined Rules** category in the left pane, then select the rule you want to remove in the right pane.
5. Click **Delete**.

   NOTE: To disable a rule without deleting it, deselect the **Block** and **Report** actions. You can enable the rule again if necessary.

ePolicy Orchestrator 4.0

From the Access Protection Policies, remove rules that you created but no longer use.

Task

For option definitions, click **?** or **Help** in the interface.

1 Click **Systems | Policy Catalog**, then from the Product list select **VirusScan Enterprise 8.8.0**. The Category list displays the policy categories for VirusScan Enterprise 8.8.0.

2 Edit an existing policy or create a new policy:
Edit an existing policy

   a From the **Category** list, select the policy category.

   b From the **Actions** column, click **Edit** to open the policy configuration page.

Create a new policy

   a Click **New Policy** to open New Policy dialog box.

   b From the **Create a new policy based on this existing policy** list, select one of the settings.

   c Type a new policy name.

   d Click **OK**. The new policy appears in the list of existing policies.

3 From the **Settings for** list, select **Workstation** or **Server**.

4 Select the **User-defined Rules** category in the left pane, then select the rule you want to remove in the right pane.

5 Click **Delete**.

   NOTE: To disable a rule without deleting it, deselect the **Block** and **Report** actions. You can enable the rule again if necessary.

VirusScan Console

From the Access Protection properties, remove rules that you created but no longer use.

Remove the user-defined rules using one of these user interface consoles.

Task

For option definitions, click **?** or **Help** in the interface.

1 From the **Task** list, right-click **Access Protection**, then click **Properties** to open the dialog box.

2 Select the **User-defined Rules** category in the left pane, then select the rule you want to remove in the right pane.

3 Click **Delete**.

   NOTE: To disable a rule without deleting it, deselect the **Block** and **Report** actions. You can enable the rule again if necessary.

Blocking buffer overflow exploits

Buffer overflow protection prevents exploited buffer overflows from executing arbitrary code on your computer. It monitors user-mode API calls and recognizes when they are called as a result of a buffer overflow.

When a detection occurs, information is recorded in the activity log and displayed in the **On-Access Scan Messages** dialog box, if you configured those options to do so.

VirusScan Enterprise uses a Buffer Overflow and Access Protection DAT file to protect approximately 30 applications, for example, Internet Explorer, Microsoft Outlook, Outlook Express, Microsoft Word, and MSN Messenger.

Contents

- How buffer overflow exploits occur
- Configuring buffer overflow protection

How buffer overflow exploits occur

Attackers use buffer overflow exploits to run executable code by overflowing the fixed-size memory buffers reserved for an input process. This code lets the attacker take over the target computer or compromise its data.

There are two types of buffer overflow exploits:

- **Heap based attacks** — They flood the memory space reserved for a program, but they are difficult to perform and rare.
- **Stack based attacks** — They use the stack memory objects to store user input and are the most common.

The following process describes stack-based buffer overflow attacks:

1. **Normal stack memory process** — The fixed-size stack memory object is usually empty and waiting for user input. When a program receives input from the user, such as their name, the data is stored on top of the stack and assigned a return memory address. When the stack is processed, the user's input is sent to the return address specified by the program.
2. **Overflowing the stack** — When the program is written, a specific amount of memory space is reserved for the data. The stack overflows if the data written is larger than the space reserved for it within the memory stack. This is only a problem when combined with malicious input.
3. **Exploiting the overflow** — If the program is waiting for a user to enter their name, but the attacker enters an executable command that exceeds the stack size, that command is saved outside of the reserved space.
4. **Running the malicious code** — The command is not automatically run just because it exceeds the stack buffer space. But it could be if a return address that points to the malicious command is provided by the attacker. Initially the program starts to crash because of the buffer overflow, but the program tries to recover by using the return address provided by the attacker. If the return address is a valid address, the malicious command is executed.
5. **Exploiting the permissions** — Since programs usually run either in kernel mode or with permissions inherited from a service account, the malicious code is now running with the same permissions as the application that was compromised. This could mean the attacker can gain full control of the operating system.

Configuring buffer overflow protection

To prevent applications from executing arbitrary code on your computer you must configure the Buffer Overflow Protection Policies.

Configure the Buffer Overflow Protection Policies with the following user interface consoles.

ePolicy Orchestrator 4.5 or 4.6

Configure the Buffer Overflow Protection Policies with this user interface consoles.

Task

For option definitions, click **?** in the interface.

1 Click **Menu | Policy | Policy Catalog**, then from the Product list select **VirusScan Enterprise 8.8.0**. The Category list displays the policy categories for VirusScan Enterprise 8.8.0.

2 Edit an existing policy or create a new policy:
Edit an existing policy

   a From the **Category** list, select the policy category.

   b From the **Actions** column, click **Edit Setting** to open the policy configuration page.
Create a new policy

   a Click **Actions | New Policy** to open New Policy dialog box.

   b From the **Category** list, select an existing policy.

   c From the **Create a new policy based on this existing policy** list, select one of the settings.

   d Type a new policy name.

   e Type any notes, if required.

   f Click **OK**. The new policy appears in the list of existing policies.

   g From the **Actions** column of the new policy, click **Edit Setting** to open the policy configuration page.

3 From the **Settings for** list, select **Workstation** or **Server**.

4 From the Buffer Overflow Protection Policies page, click the **Buffer Overflow Protection** tab and configure the following:

   a Enable **Buffer overflow settings** and the protection mode used. Configure the protection mode to either block the exploit or simply send a message and log the event.

   b Enable the **Client system warnings** that are sent when a buffer overflow exploit occurs.

   c Configure **Buffer overflow exclusions** for specific application programming interface (API) values, plus the optional processes and module names to exclude.

5 Click the **Reports** tab, enable the scanning activity log files, where they are stored, their size, and format.

   NOTE: These log files are very helpful when you diagnose security threats and help determine what actions to take against these threats.

ePolicy Orchestrator 4.0

Configure the Buffer Overflow Protection Policies with this user interface console.

Task

For option definitions, click **?** in the interface.

1 Click **Systems | Policy Catalog**, then from the Product list select **VirusScan Enterprise 8.8.0**. The Category list displays the policy categories for VirusScan Enterprise 8.8.0.

2 Edit an existing policy or create a new policy:
Edit an existing policy
   a From the **Category** list, select the policy category.
   b From the **Actions** column, click **Edit** to open the policy configuration page.
Create a new policy
   a Click **New Policy** to open New Policy dialog box.
   b From the **Create a new policy based on this existing policy** list, select one of the settings.
   c Type a new policy name.
   d Click **OK**. The new policy appears in the list of existing policies.
3 From the **Settings for** list, select **Workstation** or **Server**.
4 From the Buffer Overflow Protection Policies page, click the **Buffer Overflow Protection** tab and configure the following:
   1 Enable **Buffer overflow settings** and the protection mode used. Configure the protection mode to either block the exploit or simply send a message and log the event.
   2 Enable the **Client system warnings** that are sent when a buffer overflow exploit occurs.
   3 Configure **Buffer overflow exclusions** for specific application programming interface (API) values, plus the optional processes and module names to exclude.
5 Click the **Reports** tab, enable the scanning activity log files, where they are stored, their size, and format.

   NOTE: These log files are very helpful when you diagnose security threats and help determine what actions to take against these threats.

VirusScan Console

Configure the Buffer Overflow Protection Policies with this user interface console.

Task

For option definitions, click **?** in the interface.

1 From the **Task** list, right-click **Buffer Overflow Protection**, then click **Properties** to open the dialog box.
2 From the Buffer Overflow Protection Properties page, click the **Buffer Overflow Protection** tab and configure the following:
   a Enable **Buffer overflow settings** and the protection mode used. Configure the protection mode to either block the exploit or simply send a message and log the event.
   b Enable the **Client system warnings** that are sent when a buffer overflow exploit occurs.
   c Configure **Buffer overflow exclusions** for specific application programming interface (API) values, plus the optional processes and module names to exclude.
3 Click the **Reports** tab, enable the scanning activity log files, where they are stored, their size, and format.

   NOTE: These log files are very helpful when you diagnose security threats, and help determine what actions to take against these threats.

Restricting potentially unwanted programs

VirusScan Enterprise protects your computer from potentially unwanted programs that are a nuisance or present a security risk. One common unwanted program policy is configured, but you can individually enable or disable the policy and specify actions for each of the VirusScan Enterprise scanners.

Potentially unwanted programs (PUPs) are defined as software programs written by legitimate companies that can alter the security state, or the privacy policy of the computer on which they are installed. This software can, but does not necessarily, include spyware, adware, and dialers. These embedded PUPs can be downloaded with a program that you actually want. Security-minded users recognize such programs and, in some cases, remove them.

Configuring unwanted programs

To protect your computer from potentially unwanted programs you must configure categories of unwanted programs to detect in your environment.

Configuration is a two-step process:

1. Configure the **Unwanted Programs Policy** to define which potentially unwanted programs to detect and exclude:
   - Select whole categories of programs or specific programs within a category from a predefined list which comes from the current DAT file.
   - Specify exclusions.
   - Create a list of user-defined programs to detect.
2. Enable unwanted program detection in the on-access, email, and on-demand scanners, then configure which actions to take when an unwanted program is detected.

NOTE: Detecting unwanted programs is enabled for the on-demand scanner differently because the on-demand scan is a task not a policy. See *Configuring on-demand scan tasks* for details.

Tasks

- Accessing the unwanted programs policies
- Enabling unwanted program detection in the on-access and email scanners

Accessing the unwanted programs policies

Configure the unwanted program policies by selecting the categories of unwanted programs to detect. For example, spyware and adware. You can also specify exclusions for programs not to detect.

Access the unwanted programs policies using the following user interface consoles.

ePolicy Orchestrator 4.5 or 4.6

Configure the Unwanted Programs Policies with this user interface console.

Task

For option definitions, click **?** in the interface.

1 Click **Menu | Policy | Policy Catalog**, then from the Product list select **VirusScan Enterprise 8.8.0**. The Category list displays the policy categories for VirusScan Enterprise 8.8.0.

2 Edit an existing policy or create a new policy:
Edit an existing policy

   a From the **Category** list, select the policy category.

   b From the **Actions** column, click **Edit Setting** to open the policy configuration page.
Create a new policy

   a Click **Actions | New Policy** to open New Policy dialog box.

   b From the **Category** list, select an existing policy.

   c From the **Create a new policy based on this existing policy** list, select one of the settings.

   d Type a new policy name.

   e Type any notes, if required.

   f Click **OK**. The new policy appears in the list of existing policies.

   g From the **Actions** column of the new policy, click **Edit Setting** to open the policy configuration page.

3 From the **Settings for** list, select **Workstation** or **Server**.

4 From the **Unwanted Programs Policy** page, click the **Scan Items** tab to configure:

   a **Categories of unwanted programs to detect** — For example, spyware and adware. These categories are defined by the current DAT file.

   b **Exclusions** — You must specify the exact detection name that you want to exclude, not the file name.

5 Click the **User-Defined Detections** tab and specify the individual files or programs to treat as unwanted programs. Specify each item by file name and provide a description for each item.

ePolicy Orchestrator 4.0

Configure the Unwanted Programs Policies with this user interface console.

Task

For option definitions, click **?** in the interface.

1 Click **Systems | Policy Catalog**, then from the Product list select **VirusScan Enterprise 8.8.0**. The Category list displays the policy categories for VirusScan Enterprise 8.8.0.

2 Edit an existing policy or create a new policy:
Edit an existing policy

   a From the **Category** list, select the policy category.

   b From the **Actions** column, click **Edit** to open the policy configuration page.
Create a new policy

   a Click **New Policy** to open New Policy dialog box.

   b From the **Create a new policy based on this existing policy** list, select one of the settings.

   c Type a new policy name.

   d Click **OK**. The new policy appears in the list of existing policies.

3 From the **Settings for** list, select **Workstation** or **Server**.

4 From the **Unwanted Programs Policy** page, click the **Scan Items** tab to configure:

   a **Categories of unwanted programs to detect** — For example, spyware and adware. These categories are defined by the current DAT file.

   b **Exclusions** — You must specify the exact detection name that you want to exclude, not the file name.

5 Click the **User-Defined Detections** tab and specify the individual files or programs to treat as unwanted programs. Specify each item by file name and provide a description for each item.

VirusScan Console

Configure the Unwanted Programs properties using this user interface console.

Task

For option definitions, click **Help** in the interface.

1 From the **Task** list, right-click **Unwanted Programs Policy**, then click **Properties** to open the Unwanted Programs Policy dialog box.

2 From the **Unwanted Programs Policy** page, click the **Scan Items** tab to configure:

   a **Categories of unwanted programs to detect** — For example, spyware and adware. These categories are defined by the current DAT file.

   b **Exclusions** — You must specify the exact detection name that you want to exclude, not the file name.

3 Click the **User-Defined Detections** tab and specify the individual files or programs to treat as unwanted programs. Specify each item by file name and provide a description for each item.

Enabling unwanted program detection in the on-access and email scanners

For the on-access and email scanners to detect unwanted programs you must enable the feature from the Scan Items tab.

Enable on-access and email scanners to detect unwanted programs using the following user interface consoles.

NOTE: To enable the on-demand scanner to detect unwanted programs, refer to *Configuring on-demand scan tasks*.

ePolicy Orchestrator 4.5 or 4.6

Enable on-access and email scanners to detect unwanted programs using the ePolicy Orchestrator 4.5 or 4.6 console.

The process used to enable unwanted program detection for on-access and email scanners is essentially the same. The only difference is which policy you select in the policy catalog for step 2. To enable unwanted program detection for:

- **On-access scanning** — Select **On-Access Scan Policies**.
- **Email scanning** — Select **On-Delivery Email Policies**.

Task

For option definitions, click **?** in the interface.

1 Click **Menu | Policy | Policy Catalog**, then from the Product list select **VirusScan Enterprise 8.8.0**. The Category list displays the policy categories for VirusScan Enterprise 8.8.0.

2 Edit an existing policy or create a new policy:
Edit an existing policy

   a From the **Category** list, select the policy category.

   b From the **Actions** column, click **Edit Setting** to open the policy configuration page.
Create a new policy

   a Click **Actions | New Policy** to open New Policy dialog box.

   b From the **Category** list, select an existing policy.

   c From the **Create a new policy based on this existing policy** list, select one of the settings.

   d Type a new policy name.

   e Type any notes, if required.

   f Click **OK**. The new policy appears in the list of existing policies.

   g From the **Actions** column of the new policy, click **Edit Setting** to open the policy configuration page.

3 From the **Settings for** list, select **Workstation** or **Server**.

4 From the **On-Access Scan Policies** or **On-Delivery Email Policies** page, click the **Scan Items** tab and select **Detect unwanted programs**.

ePolicy Orchestrator 4.0

Enable on-access and email scanners to detect unwanted programs using the ePolicy Orchestrator 4.0 console.

The process used to enable unwanted program detection for on-access and email scanners is essentially the same. The only difference is which policy you select in the policy catalog for step 2. To enable unwanted program detection for:

- **On-access scanning** — Select **On-Access Scan Policies**.
- **Email scanning** — Select **On-Delivery Email Policies**.

Task

For option definitions, click **?** in the interface.

1 Click **Systems | Policy Catalog**, then from the Product list select **VirusScan Enterprise 8.8.0**. The Category list displays the policy categories for VirusScan Enterprise 8.8.0.

2 Edit an existing policy or create a new policy:
Edit an existing policy

   a From the **Category** list, select the policy category.

   b From the **Actions** column, click **Edit** to open the policy configuration page.
Create a new policy

   a Click **New Policy** to open New Policy dialog box.

   b From the **Create a new policy based on this existing policy** list, select one of the settings.

c Type a new policy name.

d Click **OK**. The new policy appears in the list of existing policies.

3 From the **Settings for** list, select **Workstation** or **Server**.

4 From the **On-Access Scan Policies** or **On-Delivery Email Policies** page, click the **Scan Items** tab and select **Detect unwanted programs**.

VirusScan Console

Enable on-access and email scanners to detect unwanted programs using the VirusScan Console.

The process used to enable unwanted program detection for on-access and email scanners is essentially the same. The only difference is which task you select in the VirusScan Console for step 2. To enable unwanted program detection for:

- **On-access scanning** — Select **On-Access Scan Policies**.
- **Email scanning** — Select **On-Delivery Email Scanner**.

Task

For option definitions, click **Help** in the interface.

1 From the **Task** list, right-click one of the following, then click **Properties** to open its dialog box:

- **On-Access Scan Policies** — For on-access scanning.
- **On-Delivery Email Scanner** — For email scanning.

2 From the **On-Access Scan Policies** or **On-Delivery Email Policies** page, click the **Scan Items** tab and select **Detect unwanted programs**.

Updating detection definitions

The VirusScan Enterprise software depends on the scanning engine and the information in the detection definition (DAT) files to identify and take action on threats. New threats appear on a regular basis. To meet this challenge, McAfee releases new DAT files every day that incorporate the results of its ongoing threat research. The update task retrieves the most current DAT files from the external McAfee update site and installs them.

NOTE: An ePolicy Orchestrator-managed environment can also retrieve the most current DAT files, EXTRA.DAT file, scanning engine, Service Packs, and Patches.

Contents

- DAT files and how they work
- The importance of an update strategy
- Update tasks and how they work
- Mirror tasks and how they work
- How the AutoUpdate repository works
- How rolling back DAT files works

DAT files and how they work

When the scanning engine searches through files looking for threats, it compares the contents of the scanned files to *known threat information* stored in the detection definition (DAT) files. The known threat information, called *signatures*, is information McAfee Labs has found and added to the DAT files.

Besides the signatures, the DAT files also includes how to clean and counteract the damage created by the detected virus. That is why it is so important to download the most recent version of DAT file used by VirusScan Enterprise.

CAUTION: If the signature of a certain virus is not contained in any of the DAT files you have installed, that virus will not be detected by the scanning engine. Also, the scanning engine must be the latest version to be able to fully utilize the latest DAT files.

VirusScan Enterprise also uses heuristics, called Artemis, to check for suspicious files along with the DAT files. Refer to *How Artemis works* for more information.

The various DAT files are stored at the following path:

\Program Files\Common Files\McAfee\Engine

The importance of an update strategy

The importance of an update strategy cannot be overstated. Without the latest DAT files and scanning engine installed on your system, it is not fully protected from the latest viruses. There has been an unprecedented rise in the number, propagation rate, and prevalence of new malware. In addition, the growing amount of adware and spyware requires more consistent and available detection and removal.

McAfee Labs releases DAT file updates at about 6:00 PM (GMT) almost every day. Naturally, outbreaks will still occur at awkward times and require emergency releases. When a daily DAT is released early, to pre-empt a potential outbreak, no second DAT is released that day at the normally scheduled time, unless another emergency situation requires one.

How an update strategy is determined

You can update the DAT files and scanning engine, used by VirusScan Enterprise, using many methods. You can use AutoUpdate tasks, manual updates, login scripts, or schedule updates with management tools.

Using an update task allows you to:

- **Schedule network-wide DAT file rollouts** — You might stagger your update tasks, or set a schedule that phases in DAT file updates to different parts of the network at convenient times and with minimal intervention from administrators or network users.
- **Split duties for rollout administration** — To increase network bandwidth efficiency, use different servers or domain controllers, among different regions of wide-area networks, or across other network divisions to keep update traffic primarily internal. This can also reduce the potential for network security breaches.
- **Reduce the waiting time required to download new DAT or upgraded engine files** — Traffic on McAfee computers increases dramatically on regular DAT file publishing dates and whenever new product versions are available. Avoiding the competition for network bandwidth enables you to deploy your new software with minimal interruptions.

Requirements for an efficient update strategy

An efficient updating strategy generally requires at least one client or server in your organization to retrieve updates from the McAfee download site. From there, the files can be replicated throughout your organization, providing access for all other computers. Ideally, you should minimize the amount of data transferred across your network by automating the process of copying the updated files to your share sites.

The main factors to consider for efficient updating are the number of clients and the number of sites. You might also consider the number of systems at each remote site and how remote sites access the Internet. The basic concepts of using a central repository to retrieve updates and scheduling update tasks to keep your environment up-to-date apply to any size organization. For deploying software and update information, see the appropriate ePolicy Orchestrator product guide.

Update tasks and how they work

Use the update task to get the most current DAT files, scanning engine, and service packs and patches.

VirusScan Enterprise includes a default update task which runs every day at 5:00 p.m. with one-hour randomization. You can create additional update tasks as needed.

Update task activities

These activities occur when you run an update task:

- A connection is made to the first *enabled* repository (update site) in the repository list. If this repository is not available, the next site is contacted, and so on until a connection is made, or until the end of the list is reached.
- An encrypted CATALOG.Z file downloads from the repository. The file contains the fundamental data required to update. This data is used to determine which files and updates are available.
- The software versions in the file are checked against the versions on the computer. If new software updates are available, they are downloaded.

Update task interruption

If the update task is interrupted for any reason during the update:

- A task updating from an HTTP, UNC, or local site resumes where it left off the next time the update task starts.
- A task updating from an FTP site does not resume if interrupted during a single file download. However, if the task is downloading several files and is interrupted, the task resumes before the file that was being downloaded at the time of the interruption.

Update using EXTRA.DAT

An EXTRA.DAT file can be used as a temporary measure in an emergency. The EXTRA.DAT is downloaded from the repository on each update. This ensures that if you modify and re-check in the EXTRA.DAT in as a package, all VirusScan Enterprise clients download and use the same updated EXTRA.DAT package. For example, you may use the EXTRA.DAT as an improved detector for the same potentially unwanted program or additional detection for other new potentially unwanted programs. VirusScan Enterprise supports using only one EXTRA.DAT file.

TIP: When you have finished using the EXTRA.DAT file, you should remove it from the master repository and run a replication task to ensure it is removed from all distributed repository sites. This stops VirusScan Enterprise clients from attempting to download the EXTRA.DAT file during

an update. By default, detection for the new potentially unwanted program in the EXTRA.DAT is ignored once the new detection definition is added to the daily DAT files.

Configuring the AutoUpdate task

To update DAT files and scan engines automatically for all McAfee products, you must configure the AutoUpdate properties and schedule.

Task

For option definitions, click **?** or **Help** on the tab.

1 To access the AutoUpdate properties use:

- **ePolicy Orchestrator 4.5 or 4.6** — Click **Menu | Systems | System Tree** and select **Client Tasks**.

  NOTE: Refer to the *McAfee ePolicy Orchestrator 4.5 Product Guide* for detailed instructions on creating a new scheduled client task.

- **ePolicy Orchestrator 4.0** — Click **Systems | System Tree | Client Task** and select an existing update task or to create a new task, click **New Task**.

  NOTE: Refer to the *McAfee ePolicy Orchestrator 4.0 Product Guide* for detailed instructions on creating a new scheduled client task.

- **VirusScan Console** — Select an existing update task (right-click and select **Properties**), or create a new task (select **Task | New Update Task**, select the new task in the list).

  TIP: When you create a new client task, we recommend renaming the task with a descriptive name.

2 Specify the log file location and format.

3 Configure whether to get newer DATs, newer engine, and other available updates such as service packs, and product upgrades.

4 Specify which executable to run after the update task has completed and whether to run it only after a successful update.

5 Click **Schedule** to configure when and how often the task should run. Refer to, *Using scheduled tasks* for details.

6 Click **Update Now**, the task runs immediately.

Mirror tasks and how they work

The mirror task replicates the update files from the first accessible repository defined in the repository list, to a mirror site on your network. The most common use of this task is to mirror the contents of the McAfee download site to a local server.

After you replicate the McAfee site that contains the update files, computers on your network can download the files from the mirror site. This approach is *practical* because it allows you to update any computer on your network, whether or not it has Internet access; and *efficient* because your systems are communicating with a server that is probably closer than a McAfee Internet site, economizing access and download time.

The VirusScan Enterprise software relies on a directory structure to update itself. When mirroring a site, it is important to replicate the entire directory structure.

NOTE: This directory structure also supports previous versions of VirusScan Enterprise and NetShield, as long as the entire directory structure is replicated in the same location that VirusScan Enterprise 8.8 uses for updating.

Configuring the mirror task

To store DAT files and scan engines in a designated location for use by other computers, configure the location and schedule using mirror task properties.

Task

For option definitions, click **?** or **Help** on the tab.

1 To access the Mirror task properties use:

- **ePolicy Orchestrator 4.5 or 4.6** — Click **Menu | Systems | System Tree** and select **Client Tasks**.

  NOTE: Refer to the *McAfee ePolicy Orchestrator 4.5 Product Guide* for detailed instructions on creating a new scheduled client task.

- **ePolicy Orchestrator 4.0** — Click **Systems | System tree | Client Task** and select an existing update task or to create a new task, click **New Task**.

  NOTE: Refer to the *McAfee ePolicy Orchestrator 4.0 Product Guide* for detailed instructions on creating a new scheduled client task.

- VirusScan Console, perform one of the following:
  - Select an existing mirror task, right-click and select **Properties**. The Mirror Task dialog box appears.
  - To create a new mirror task, select **Task | New Mirror Task** and a New Update Task appears in the Task list. Click the new task to open the Mirror Task dialog box.

    NOTE: Change the task name to something more descriptive by right-clicking the task and selecting **Rename**.

2 **VirusScan Console** — Select an existing update task (right-click and select **Properties**), or create a new task (select **Task | New Mirror Task**, select the new task in the list).

  TIP: When you create a new client task, we recommend renaming the task with a descriptive name.

3 Specify the log file location and format.

4 Configure whether to get newer detection definitions, newer engine and DATs, and other available updates such as service packs, and product upgrades.

5 Specify which executable to run after the update task has completed and whether to run it only after a successful update.

6 Click **Mirror Location** to configure the mirror server destination.

7 Click **Schedule** to configure when and how often the task should run. Refer to, *Using scheduled tasks* for details.

8 Click **Mirror Now** to run the task immediately.

9 Configure the options on the tab. For option definitions, click **?** or **Help** on the tab.

Tab definitions

Tab	Definitions
Mirror	• Specify the log file location and format. • Specify which executable to run after the mirror task has completed and whether to run it only after a successful mirror.

How the AutoUpdate repository works

The AutoUpdate repository list (SITELIST.XML) specifies the configuration information necessary to perform an AutoUpdate task.

The AutoUpdate repository list includes:

- Repository information and location
- Repository order preference
- Proxy settings, where required
- Encrypted credentials required to access each repository

When an AutoUpdate task is performed, a connection is made to the first enabled repository (update site) in the repository list. If this repository is not available, the next repository is contacted, and so on until a connection is made, or until the end of the list is reached.

If your network uses a proxy server, you can specify which proxy settings to use, the address of the proxy server, and whether to use authentication. Proxy information is stored in the AutoUpdate repository list. The proxy settings you configure apply to all repositories in the repository list.

The location of the AutoUpdate repository list depends on your operating system.

- For Microsoft Windows XP, Microsoft Vista, Microsoft 2000 Server, Microsoft 2003 Server, and Microsoft 2008 Server — C:\Documents and Settings\All Users\Application Data\McAfee\Common Framework
- For Microsoft Windows 7 — C:\ProgramData\McAfee\Common Framework

Configuring the repository list

The repository list includes the repositories where you retrieve updates. Create and configure as many repositories as you need. Some sites can be used all the time while others are used only occasionally.

Task

For option definitions, click **Help** in the interface.

1 From the VirusScan Console, select **Tools | Edit AutoUpdate Repository List** to access the **AutoUpdate Repository List** properties.

NOTE: To configure the repository feature using the ePolicy Orchestrator console navigate to the **Policy Catalog | McAfee Agent** display and click the **Repositories** tab.

2 Configure the options on the tabs.

Tab definitions

Tab	Definitions
Repositories	• Specify the repositories where you get updates. • Configure the order to access the repositories.
Proxy settings	Specify which proxy settings to use when updating.

How rolling back DAT files works

If you find your current DAT files are corrupted or incompatible, you can roll back the DAT files to the last backed up version.

When you update DAT files, the old version is stored in this location: <drive>:\Program Files\Common Files\McAfee\Engine\OldDats.

When you rollback the DAT files, the current DAT files are replaced with the version in the *OldDats* folder, and a flag is set in the registry at this location: HKEY_LOCAL_MACHINE\SOFTWARE\McAfee\DesktopProtection\szRolledbackDATS.

Once the rollback occurs, you cannot go back to the previous version again. The next time an update occurs, the DAT version in the registry is compared with the DAT files in the update repository. If the new DAT files are the same as those in the registry, no update occurs.

Rolling back DAT files

To revert your DAT files version back to the previous version use the Rollback DATs tool.

Task

For option definitions, click **Help** in the interface.

1 From the VirusScan Console, select **Tools | Rollback DATs**.

2 Click **Yes** to proceed with the DAT rollback.

NOTE: This feature is not available from the ePolicy Orchestrator console.

3 Configure the options on the tab.

Excluding scan items

Each of the VirusScan Enterprise scanners allows you to fine-tune the list of file types scanned. For example, you can exclude from scanning individual files, folders, and disks. These exclusions might be needed because the scanners could scan and lock a file when that file is being used by a database or server. This could cause the database or server to fail or generate errors.

Contents

▸ Specifying exclusions
▸ How to use wildcards to specify scan items

Specifying exclusions

Specify files, folders, and drives to exclude from scanning operations. You can also remove any exclusions you specified previously.

Option definitions

Option	Definition
What to exclude	Select the type of exclusion. • **Exclude by file name/location —** Specify the file name, location, and whether to exclude subfolders. NOTE: You must add a backslash (\) at the end of the string to apply to a folder. Otherwise, it is considered a file exclusion and the **Also exclude subfolders** checkbox is disabled by default. • **Exclude by file type —** Specify a file type(s). • **Exclude by file age —** Specify the access type and minimum age in days.
When to exclude	Select when to exclude the selected item: • **On read** • **On write**
How to handle client exclusions	**Overwrite client exclusions** — Only exclude items specified in this policy. If this option is not selected, the client computer uses exclusions that were specified locally and the exclusions specified in this policy. NOTE: This option is only available via ePolicy Orchestrator.

How to use wildcards to specify scan items

You can use wildcards to exclude types of files by extension.

When using wildcards, these limitations apply.

- Valid wildcards are question mark (?) for excluding single characters and asterisk (*) for excluding multiple characters.
- Wildcards can appear in front of a back slash (\) in a path. For example: C:\ABC*\XYZ matches C:\ABC\DEF\XYZ.
- An exclusion containing question mark (?) characters applies if the number of characters matches the length of the file or folder name. For example: The exclusion W?? excludes WWW, but does not exclude WW or WWWW.
- The syntax is extended to include a double asterisk (**), which means *zero or more of any characters including back slash*. This allows multiple-depth exclusions. For example: C:\ABC**\XYZ matches C:\ABC\DEF\XYZ and C:\ABC\DEF\DEF\XYZ, etc.

Using scheduled tasks

As part of configuring on-demand scan, AutoUpdate, or mirror tasks, you need to specify when, how often, and for how long these tasks should run. You also need to configure user permissions as part of the configuration process.

Contents

- Scheduling tasks
- Configuring the task schedule

Scheduling tasks

You have the option to schedule on-demand, AutoUpdate, and mirror tasks to run at specific dates and times, or intervals. The way you schedule tasks depends on the user interface console you use.

To schedule these tasks:

- **ePolicy Orchestrator console** — Use the **Schedule** tab to display the Schedule page.
- **VirusScan Console** — Use the **Schedule** button to display the Schedule dialog box.

Configuring the task schedule

To configure a task to run at a specified time or interval, use the Schedule Settings dialog box.

Before you begin

You must have administrator rights to schedule the task. Administrator rights provide the user with write access to the scheduled task's registry key.

To schedule a task, click **Schedule** in the task's properties dialog box.

CAUTION: McAfee recommends scheduling on-demand scans at minimum intervals.

Recommended McAfee minimum intervals:

- **Daily** — Only if you have had a major malware outbreak.
- **Weekly** — Recommended.
- **Monthly** — Acceptable.
- **Quarterly** — The bare minimum.

Tab definitions

Tab	Definitions
Task	• Enable scheduled task to run at specified times. • Stop the task if it runs for the specified hours and minutes. • Specify user account settings; user name, domain, and password.
Schedule	Specify the schedule frequency and associated settings.

Part II - Detection: Finding Threats

Finding threats is the second step in a protection strategy to detect malware attempting to gain access to your system.

Contents

- Scanning items on-access
- Scanning items on-demand
- Scanning email on-delivery and on-demand

Scanning items on-access

The on-access scanner examines files on your computer as they are accessed, which provides continuous, real-time detection of threats. Both the Access Protection and Buffer Overflow Protection features also use the on-access scanner to detect access violations and buffer overflow exploits respectively.

Contents

- On-access scanning and how it works
- Scanning comparison: writing to disk vs. reading from disk
- Scanning comparison: scanning all files vs. scanning default + additional file types
- Script scanning and how it works
- Determine the number of scanning policies
- How Artemis works
- How general and process settings are configured

On-access scanning and how it works

The on-access scanner hooks into the system at the lowest levels (File-System Filter Driver), it scans files where they first enter your system. The on-access scanner acts as part of the system (System Service), and delivers notifications via the interface when detections occur.

When an attempt is made to open, close, or rename a file, the scanner intercepts the operation and takes these actions.

1 The scanner determines if the file should be scanned based on this criteria:

- The file's extension matches the configuration.
- The file has not been cached.
- The file has not been excluded.
- The file has not been previously scanned.

2 If the file meets the scanning criteria, it is scanned by comparing the information in the file to the known malware signatures in the currently loaded DAT files.
   - If the file is clean, the result is cached and read, write, or rename operation is granted.
   - If the file contains a threat, the operation is denied and the configured action is taken. For example:
     - If the file needs to be cleaned, that cleaning process is determined by the currently loaded DAT files.
     - The results are recorded in the activity log, if the scanner was configured to do so.
     - The **On-Access Scan Messages** alert appears describing the file name and the action taken, if the scanner was configured to do so.

3 If the file does not meet the scanning requirements, it is not scanned. It is cached and the operation is granted.

   NOTE: The scan file cache is flushed and all files are rescanned whenever, for example, the on-access scan configuration is changed, an EXTRA.DAT file is added, or when the cache is full.

Scanning comparison: writing to disk vs. reading from disk

The on-access scanner performs scans differently, depending on whether the user is writing to disk or reading from disk.

When files are being written to disk, the on-access scanner scans these items:

- Incoming files being written to the local hard drive.
- Files being created on the local hard drive or a mapped network drive (this includes new files, modified files, or files being copied or moved from one drive to another).

  NOTE: To scan mapped network drives, you must enable the **On Network Drives** option. Refer to *Enabling on-network drives*.

  These scans are only accessible by the same client where VirusScan Enterprise is installed. It does not detect access to the mapped network drive by other systems.

When files are being read from disk, the on-access scanner scans these items:

- Outgoing files being read from the local hard drive or mapped network drives.

  NOTE: To scan mapped network drives, select the **On network drives** option, described in the previous bullets, to include remote network files.

- Any file attempting to execute a process on the local hard drive.
- Any file opened on the local hard drive.
- Any file being renamed on the local hard drive, if the file properties have changed.

Scanning comparison: scanning all files vs. scanning default + additional file types

The on-access scanner scans files differently depending on whether it is configured to scan all files, or to scan default files plus additional file types.

When scanning **All files**, the scanner examines every file type for all possible threats.

When scanning **Default + additional file types**, the scanner examines a list of specific files based on the file types you select.

- **Default file types**: The on-access scanner examines the specified file type only for threats that attack that file type.
- **Additional file types**: The on-access scanner examines the files with matching extensions for all possible threats.
- **Specified files types**: The on-access scanner examines the user defined list of file extensions for all possible threats.

Script scanning and how it works

The script scanner operates as a proxy component to the real Windows scripting host component. It intercepts scripts, then scans them before they are executed.

For example, the script scanner confirms:

- If the script is clean, it is passed on to the real scripting host component.
- If the script contains a potential threat, the script is not executed.

Trusted processes and also websites that utilize scripts can be excluded from inspection.

NOTE: On Windows Server 2008 systems, Script Scan URL exclusions do not work with Windows Internet Explorer unless you click the checkbox **Enable third-party browser extensions** to enable the setting and restart Windows Server 2008. For details, see https://kc.mcafee.com/corporate/index?page=content&id=KB69526.

How Artemis works

The Artemis feature uses heuristics to check for suspicious files. It provides users with Windows-based McAfee anti-virus products that have the most up-to-date real-time detections for certain malware.

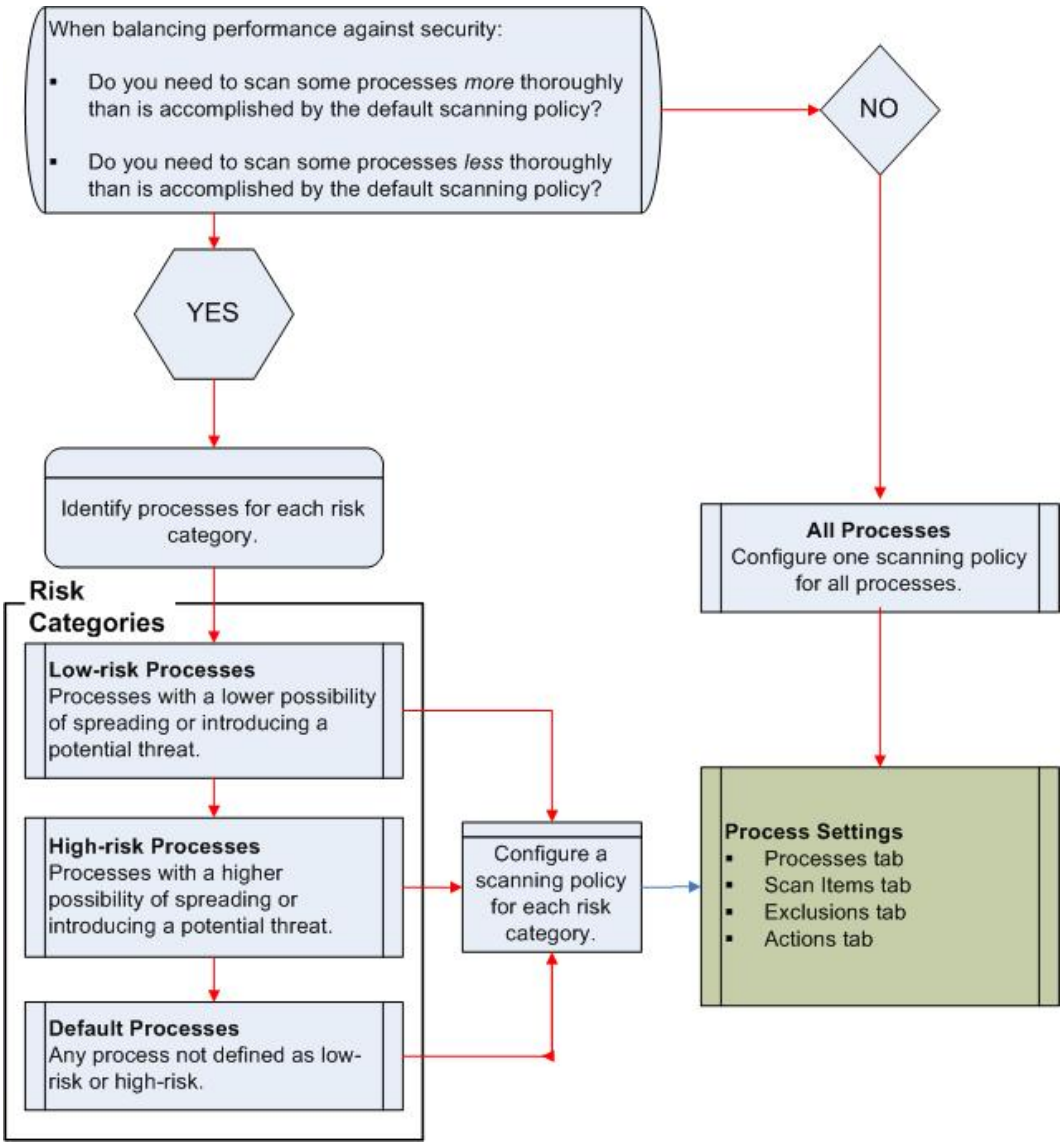
Artemis does not provide protection for entire classes of malware; just for suspicious samples. The benefit of protecting against specific threats is the capability to protect users with McAfee security at virtually the same time that McAfee Labs determines a sample is malicious.

You can configure the administrator-configured sensitivity levels Artemis uses to look for suspicious programs and DLLs running on client systems protected by VirusScan Enterprise. When Artemis detects a suspicious program, it sends a DNS request containing a fingerprint of the suspicious file to a central database server hosted by McAfee Labs.

NOTE: In this release, the Artemis feature is enabled by default, with the sensitivity level set to very low.

Determine the number of scanning policies

Follow this process to determine whether to configure more than one on-access scanning policy.


When balancing performance against security:
Do you need to scan some processes more thoroughly than is accomplished by the default scanning policy?
Do you need to scan some processes less thoroughly than is accomplished by the default scanning policy?
NO
YES
Identify processes for each risk category.
All Processes
Configure one scanning policy for all processes.
Risk Categories
Low-risk Processes
Processes with a lower possibility of spreading or introducing a potential threat.
High-risk Processes
Processes with a higher possibility of spreading or introducing a potential threat.
Default Processes
Any process not defined as low-risk or high-risk.
Configure a scanning policy for each risk category.
Process Settings
Processes tab
Scan Items tab
Exclusions tab
Actions tab

How general and process settings are configured

The on-access scanner's general and process policies are configured separately.

- **General Settings** — Includes options that apply to all processes.
- **Process Settings** — Allow you to configure one scanning policy for all processes, or configure different policies for processes that you define as default, low-risk, and high-risk.

Configuring general settings

General settings apply to the scanning of all processes and include parameters, such as maximum scan time, scanning scripts, blocking unwanted threats from a remote computer, sending messages when threats are detected, and reporting detections.

Configure the on-access general settings using the following user interface consoles.

ePolicy Orchestrator 4.5 or 4.6

Configure the general settings that apply to scanning of all processes with this user interface console.

Task

For option definitions, click **?** in the interface.

1. Click **Menu | Policy | Policy Catalog**, then from the Product list select **VirusScan Enterprise 8.8.0**. The Category list displays the policy categories for VirusScan Enterprise 8.8.0.
2. Edit an existing policy or create a new policy:
   Edit an existing policy
   - **a** From the **Category** list, select the policy category.
   - **b** From the **Actions** column, click **Edit Setting** to open the policy configuration page.

   Create a new policy
   - **a** Click **Actions | New Policy** to open New Policy dialog box.
   - **b** From the **Category** list, select an existing policy.
   - **c** From the **Create a new policy based on this existing policy** list, select one of the settings.
   - **d** Type a new policy name.
   - **e** Type any notes, if required.
   - **f** Click **OK**. The new policy appears in the list of existing policies.
   - **g** From the **Actions** column of the new policy, click **Edit Setting** to open the policy configuration page.
3. From the **Settings for** list, select **Workstation** or **Server**.
4. From the **On-Access General Policies** page, click the **General** tab to configure the general policy that applies to all on-access scanning. For example, which on-access items to scan, when to scan, the maximum scan time, and if cookies should be scanned.

   You can configure scanning of all processes currently running on your system whenever on-access scanning is enabled. This improves your system security, but it can impact your system boot-time performance.

   To configure the scan processes on enable feature, in the Scan group, click **Processes on enable** to scan all processes currently running on your system whenever on-access scanning is enabled.

   NOTE: Enabling this feature can impact the time it takes for your system to boot up.
5. On the **ScriptScan** tab, enable ScriptScan and configure any processes or URLs to exclude from scanning.

   NOTE: With previous versions of VirusScan Enterprise disabling on-access scanning disabled ScriptScan. With VirusScan Enterprise 8.8 disabling on-access scanning does not disable ScriptScan. To disable ScriptScan deselect the **Enable scanning of scripts** checkbox.

6 On the **Blocking** tab, configure blocking connections from remote computers that write files with potential threats or unwanted programs.

NOTE: By default, when a remote system writes any malware to a system with VirusScan Enterprise, VirusScan Enterprise blocks the connection to that remote system.

You can also configure a message that is sent to the system that has written the malware.

NOTE: To send this message requires Windows Messenger service.

7 On the **Messages** tab, configure messages to notify local users when detections occur with a configured message, and specify which actions the user can take against the threat.

8 On the **Reports** tab, enable the scanning activity log files and define where they are stored, their size, format, and any additional scan logging to help you diagnose this threat.

NOTE: These log files are very helpful when you diagnose security threats and help determine which actions to take against these threats.

ePolicy Orchestrator 4.0

Configure the general settings that apply to scanning of all processes with this user interface console.

Task

For option definitions, click **?** in the interface.

1 Click **Systems | Policy Catalog**, then from the Product list select **VirusScan Enterprise 8.8.0**. The Category list displays the policy categories for VirusScan Enterprise 8.8.0.

2 Edit an existing policy or create a new policy:
Edit an existing policy

a From the **Category** list, select the policy category.

b From the **Actions** column, click **Edit** to open the policy configuration page.
Create a new policy

a Click **New Policy** to open New Policy dialog box.

b From the **Create a new policy based on this existing policy** list, select one of the settings.

c Type a new policy name.

d Click **OK**. The new policy appears in the list of existing policies.

3 From the **Settings for** list, select **Workstation** or **Server**.

4 From the **On-Access General Policies** page, click the **General** tab to configure the general policy that applies to all on-access scanning. For example, which on-access items to scan, when to scan, the maximum scan time, and if cookies should be scanned.

You can configure scanning of all processes currently running on your system whenever on-access scanning is enabled. This improves your system security, but it can impact your system boot-time performance.

To configure the scan processes on enable feature, in the Scan group, click **Processes on enable** to scan all processes currently running on your system whenever on-access scanning is enabled.

NOTE: Enabling this feature can impact the time it takes for your system to boot up.

5 On the **ScriptScan** tab, enable ScriptScan and configure any processes or URLs to exclude from scanning.

NOTE: With previous versions of VirusScan Enterprise disabling on-access scanning disabled ScriptScan. With VirusScan Enterprise 8.8 disabling on-access scanning does not disable ScriptScan. To disable ScriptScan deselect the **Enable scanning of scripts** checkbox.

6 On the **Blocking** tab, configure blocking connections from remote computers that write files with potential threats or unwanted programs.

NOTE: By default, when a remote system writes any malware to a system with VirusScan Enterprise, VirusScan Enterprise blocks the connection to that remote system.

You can also configure a message that is sent to the system that has written the malware.

NOTE: To send this message requires Windows Messenger service.

7 On the **Messages** tab, configure messages to notify local users when detections occur with a configured message, and specify which actions the user can take against the threat.

8 On the **Reports** tab, enable the scanning activity log files and define where they are stored, their size, format, and any additional scan logging to help you diagnose this threat.

NOTE: These log files are very helpful when you diagnose security threats and help determine which actions to take against these threats.

VirusScan Console

Configure the general settings that apply to scanning of all processes with this user interface console.

Task

For option definitions, click **Help** in the interface.

1 From the **Task** list, right-click **On-Access Scanner**, then click **Properties** to open the dialog box.

2 From the **On-Access General Policies** page, click the **General** tab to configure the general policy that applies to all on-access scanning. For example, which on-access items to scan, when to scan, the maximum scan time, and if cookies should be scanned.

You can configure scanning of all processes currently running on your system whenever on-access scanning is enabled. This improves your system security, but it can impact your system boot-time performance.

To configure the scan processes on enable feature, in the Scan group, click **Processes on enable** to scan all processes currently running on your system whenever on-access scanning is enabled.

NOTE: Enabling this feature can impact the time it takes for your system to boot up.

3 On the **ScriptScan** tab, enable ScriptScan and configure any scripts to exclude from scanning.

NOTE: With previous versions of VirusScan Enterprise disabling on-access scanning disabled ScriptScan. With VirusScan Enterprise 8.8 disabling on-access scanning does not disable ScriptScan. To disable ScriptScan deselect the **Enable scanning of scripts** checkbox.

4 On the **Blocking** tab, configure blocking connections from remote computers that write files with potential threats or unwanted programs.

NOTE: By default, when a remote system writes any malware to a system with VirusScan Enterprise, VirusScan Enterprise blocks the connection to that remote system.

You can also configure a message that is sent to the system that has written the malware.

NOTE: To send this message requires Windows Messenger service.

5 On the **Messages** tab, configure messages to notify local users when detections occur with a configured message, and specify which actions the user can take against the threat.

6 On the **Reports** tab, enable the scanning activity log files and define where they are stored, their size, format, and any additional scan logging to help you diagnose this threat.

NOTE: These log files are very helpful when you diagnose security threats and help determine which actions to take against these threats.

Configuring process settings

On-access scan processes are configured based on the risk that you assign to each process. You can configure one default scanning policy for all processes, or configure different policies based on the risk assigned to each process. Parameters include assigning risk you assign to processes, defining items to scan, performing Artemis scanning, scanning compressed files, taking actions on detections, and scanning for potentially unwanted programs.

Configure the on-access process settings using the following user interface consoles.

ePolicy Orchestrator 4.5 or 4.6

Configure the On-Access Default Processes Policies with this user interface consoles.

Task

For option definitions, click **?** in the interface.

1 Click **Menu | Policy | Policy Catalog**, then from the Product list select **VirusScan Enterprise 8.8.0**. The Category list displays the policy categories for VirusScan Enterprise 8.8.0.

2 Edit an existing policy or create a new policy:
Edit an existing policy

a From the **Category** list, select the policy category.

b From the **Actions** column, click **Edit Setting** to open the policy configuration page.
Create a new policy

a Click **Actions | New Policy** to open New Policy dialog box.

b From the **Category** list, select an existing policy.

c From the **Create a new policy based on this existing policy** list, select one of the settings.

d Type a new policy name.

e Type any notes, if required.

f Click **OK**. The new policy appears in the list of existing policies.

g From the **Actions** column of the new policy, click **Edit Setting** to open the policy configuration page.

3 From the **Settings for** list, select **Workstation** or **Server**.

4 From the Processes tab, click **Configure different scanning policies for high-risk, low-risk, and default process** to display the on-access Default Processes, Low-Risk Processes, or High-Risk Processes.

5 From the On-Access Default, Low-Risk, or High-Risk Processes Policies page, configure the options on each tab. Refer to *Process setting tab options*.

ePolicy Orchestrator 4.0

Configure the On-Access Default Processes Policies with this user interface consoles.

Task

For option definitions, click **?** in the interface.

1 Click **Systems | Policy Catalog**, then from the Product list select **VirusScan Enterprise 8.8.0**. The Category list displays the policy categories for VirusScan Enterprise 8.8.0.

2 Edit an existing policy or create a new policy:
Edit an existing policy

a From the **Category** list, select the policy category.

b From the **Actions** column, click **Edit** to open the policy configuration page.
Create a new policy

a Click **New Policy** to open New Policy dialog box.

b From the **Create a new policy based on this existing policy** list, select one of the settings.

c Type a new policy name.

d Click **OK**. The new policy appears in the list of existing policies.

3 From the **Settings for** list, select **Workstation** or **Server**.

4 From the Processes tab, click **Configure different scanning policies for high-risk, low-risk, and default process** to display the on-access Default Processes, Low-Risk Processes, or High-Risk Processes.

5 From the On-Access Default, Low-Risk, or High-Risk Processes Policies page, configure the options on each tab. Refer to *Process setting tab options*.

VirusScan Console

Configure the On-Access Scan Properties with this user interface consoles.

Task

For option definitions, click **Help** in the interface.

1 From the **Task** list, right-click **On-Access Scanner**, then click **Properties** to open the dialog box.

2 From the left-hand pane, click **All Processes**.

3 From the Processes tab, click **Configure different scanning policies for high-risk, low-risk, and default process** to display the on-access Default Processes, Low-Risk Processes, or High-Risk Processes.

4 From the On-Access Default, Low-Risk, or High-Risk Processes Policies page, configure the options on each tab. Refer to *Process setting tab options*.

Process setting tab options

The following table describes the on-access scanner tab options.

Tab	Definitions
Processes	• **On-Access Default Processes** — Choose to configure one scanning policy for all processes or configure different scanning policies for default processes, low-risk processes, and high-risk processes. NOTE: If you choose to configure one scanning policy, this policy applies to all processes. If you choose to configure different scanning policies for low-risk and high risk policies, this policy applies only to the processes that are not defined as low-risk or high-risk. • **On-Access Low-Risk Processes** — Specify the processes that you define as low-risk. • **On-Access High-Risk Processes** — Specify the processes that you define as high-risk. NOTE: The **Configure different scanning policies for high-risk, low-risk, and default processes** option must be selected on the **On-Access Default Processes** tab before you can configure individual policies for low-risk and high-risk processes.
Scan Items	• Configure whether to scan files on read, on write, on network drives and opened for backup. CAUTION: Failure to enable **When writing to disk** and **When reading from disk** leaves your system unprotected from numerous malware attacks. • Configure which files and file types to scan. CAUTION: Failure to enable **All files** leaves your system unprotected from numerous malware attacks. • Scan for potential threats that resemble unwanted programs, Trojan horses and macro viruses. • Scan inside archives and decode MIME encoded files. • Enable on-access scanning for unwanted programs.
Exclusions	Configure which disks, files, and folders to exclude from scanning.
Actions	For threat detections: • Primary action to take when a threat is detected. • Secondary action to take on a threat detection if the first action fails. For unwanted program detections: • Primary action to take when an unwanted program is detected. • Secondary action to take on an unwanted program detection if the first action fails.

Enabling on-network drives

To scan mapped network drives, you must enable the **On Network Drives** option.

Configure the on-access scanning of on-network drives from the On-Access Default Processes Policies using one of the following user interface consoles.

ePolicy Orchestrator 4.5 or 4.6

Enable on-network drives from the On-Access Default Processes Policies with this user interface console.

Task

For option definitions, click **?** in the interface.

1 Click **Menu | Policy | Policy Catalog**, then from the Product list select **VirusScan Enterprise 8.8.0**. The Category list displays the policy categories for VirusScan Enterprise 8.8.0.

2 Edit an existing policy or create a new policy:
Edit an existing policy

   a From the **Category** list, select the policy category.

   b From the **Actions** column, click **Edit Setting** to open the policy configuration page.
Create a new policy

   a Click **Actions | New Policy** to open New Policy dialog box.

   b From the **Category** list, select an existing policy.

   c From the **Create a new policy based on this existing policy** list, select one of the settings.

   d Type a new policy name.

   e Type any notes, if required.

   f Click **OK**. The new policy appears in the list of existing policies.

   g From the **Actions** column of the new policy, click **Edit Setting** to open the policy configuration page.

3 From the **Settings for** list, select **Workstation** or **Server**.

4 On the **On-Access Default Processes Policies** page, click **Scan Items** tab, and **On network drives** next to Scan files.

5 Click **Save**.

ePolicy Orchestrator 4.0

Enable on-network drives with this user interface console.

Task

For option definitions, click **?** in the interface.

1 Click **Systems | Policy Catalog**, then from the Product list select **VirusScan Enterprise 8.8.0**. The Category list displays the policy categories for VirusScan Enterprise 8.8.0.

2 Edit an existing policy or create a new policy:
Edit an existing policy

   a From the **Category** list, select the policy category.

   b From the **Actions** column, click **Edit** to open the policy configuration page.
Create a new policy

   a Click **New Policy** to open New Policy dialog box.

   b From the **Create a new policy based on this existing policy** list, select one of the settings.

c Type a new policy name.

d Click **OK**. The new policy appears in the list of existing policies.

3 From the **Settings for** list, select **Workstation** or **Server**.

4 On the **On-Access Default Processes Policies** page, click **Scan Items** tab and **On network drives** next to Scan files.

5 Click **Save**.

VirusScan Console

Enable on-network drives with this user interface console.

Task

For option definitions, click **Help** in the interface.

1 From the **Task** list, right-click **On-Access Scanner**, then click **Properties** to open the **On-Access Scanner Properties** dialog box.

2 Click the **Scan Items** tab and **On network drives** next to Scan files.

3 Click **Save**.

Scanning items on-demand

The on-demand scanner examines all parts of your computer for potential threats, at convenient times or at regular intervals. Use on-demand scans to supplement the continuous protection that the on-access scanner offers, or to schedule regular scans at times that do not interfere with your work.

Contents

- On-demand scanning and how it works
- On-demand scanning methods and how they are defined
- How scanning of remote storage works
- How scan deferral works
- How system utilization works
- Configuring on-demand scan tasks
- Configuring global system cache

On-demand scanning and how it works

The on-demand scanner searches your system's files, folders, memory, registry, and more looking for any malware that could have infected your system. You decide when and how the on-demand scans occur. You can scan your system manually, at a scheduled time, or for example, when your system boots.

When an attempts is made to open, close, or rename a file, the scanner intercepts the operation and takes these actions.

1 The scanner determines if the file, folder, or disk should be scanned based on this criteria:

- The file's extension matches the configuration.

- The file has not been cached.
- The file has not been excluded.
- The file has not been previously scanned.

  NOTE: The on-demand scanner uses heuristics to check for suspicious files, if you configure Artemis. For details, see *How Artemis works*.

2 If the file, folder, or disk meets the scanning criteria, it is scanned by comparing the information in the file to the known virus signatures in the currently loaded DAT files.
   - If it is clean, the result is cached and the next item is checked.
   - If it contains a threat, the configured action is taken. For example:
     - If it needs to be cleaned, that process is determined by the currently loaded DAT files.
     - The results are recorded in the activity log if the scanner was configured to do so.
     - In the **On-Demand Scan Progress** dialog, the information describing the memory, file, folder, or disk name and the action taken is displayed.

3 If the memory, file, folder, or disk does not meet the scanning requirements, it is not scanned and the scanner continues until all of the data is scanned.

On-demand scanning methods and how they are defined

The on-demand scanner uses in-memory-process scanning and incremental or resumable scanning.

In-memory-process scanning

This method examines all active processes prior to running the on-demand scan task. Any detected potentially unwanted process is highlighted and the process is stopped. This means that a single pass with the on-demand scanner removes all instances of a potentially unwanted program.

Incremental or resumable scanning

This method allows you to limit when on-demand scan activity occurs, and still scan the entire system in multiple sessions. Incremental scanning can be set by adding a time limit to the scheduled scan. The scan stops when the time limit is reached. The next time this task starts, it continues from the point in the file and folder structure where the previous scan stopped.

How scanning of remote storage works

Remote storage data is hierarchical, with two defined levels of storage.

The two levels of storage:

- **Upper level, local storage** — Includes the NTFS disk volumes of the computer running Remote Storage on Windows 2000 Server.
- **Lower level, remote storage** — Located on the robotic tape library, or a standalone tape drive connected to a server computer.

Remote storage automatically copies eligible files on your local volumes to a tape library, then monitors space available on the local volumes. File data is cached locally so that it can be accessed quickly as needed. When necessary, remote storage moves data from the remote

storage to local storage. When you need to access a file on a volume managed by remote storage, open the file as usual. If the data for the file is no longer cached on your local volume, remote storage recalls the data from a tape library.

How scan deferral works

To improve performance, you can defer on-demand scan tasks when battery power is low or during full-screen presentations. You can also allow the user to defer scheduled scans in one-hour increments. The increments can last one hour, 24 hours, or the on-demand scan can be deferred forever.

Each user deferral can last one hour. For example, if the **Defer at most** option is set at 2, the user can defer the scan task two times or two hours. When the maximum specified number of hours elapses, the scan continues. If the administrator allows unlimited deferrals by setting the option to zero, the user can continue deferring the scan forever.

How system utilization works

The on-demand scanner uses the Windows Set Priority setting for the scan process and threads priority. This lets the operating system set the amount of CPU time that the on-demand scanner receives at any point in the scan process. The system utilization setting in the On-Demand Scan Properties maps to the Windows Set Priority control.

Setting the system utilization for the scan to low provides improved performance for other running applications. The low setting is useful for systems with end user activity in progress. Conversely, by setting the system utilization to normal the scan completes faster. The normal setting is useful for systems that have large volumes and very little end user activity.

The following table shows the VirusScan Enterprise and ePolicy Orchestrator default process settings.

VirusScan Enterprise process setting	Windows Set Priority setting
Low	Low
Below normal — The ePolicy Orchestrator default	Below normal
Normal — The VirusScan Enterprise 8.8 default	Normal

Configuring on-demand scan tasks

Configuring on-demand tasks depends on the user interface console you are using. These tasks describe that process for each user interface console.

Tasks

- ePolicy Orchestrator 4.5 or 4.6
- ePolicy Orchestrator 4.0
- VirusScan Console
- Configuring on-demand scan tasks tabs

ePolicy Orchestrator 4.5 or 4.6

Configure the on-demand scan tasks with this user interface console.

Task

For option definitions, click **?** in the interface.

1. Click **Menu | System | System Tree** and select **Client Task**.
2. From the Client Task page that appears:
   - To edit an existing on-demand scan task, click **Edit Setting** from the **Actions** column of the task to open the Description page.
   - To create a new on-demand scan task, click **Actions | New task** to open the Description page.
3. From the Descriptions page:
   - When editing an existing on-demand scan task, check the descriptions and click **Next**.
   - When creating a new on-demand scan task, configure the following and click **Next**:
     - **Name** and **Notes**.
     - **Type** by selecting **On-Demand Scan (VirusScan Enterprise 8.8)** from the list.
     - **Tags** that determine which computers receive the on-demand scan task.
4. From the Client Task Builder configuration page that appears, configure each of the tabs. For details, refer to *Configuring on-demand scan tasks tabs*.

ePolicy Orchestrator 4.0

Configure the on-demand scan tasks with this user interface console.

Task

For option definitions, click **?** in the interface.

1. Click **Systems | System tree | Client Task**.
2. From the Client Task page that appears:
   - To edit an existing on-demand scan task, click **Edit** from the **Actions** column of the task to open the Description page.
   - To create a new on-demand scan task, click **Actions | New task** to open the Description page.
3. Perform one of the following:
   - When editing an existing on-demand scan task, check the descriptions and click **Next**.
   - When creating a new on-demand scan task, configure the following and click **Next**:
     - **Name** and **Notes**.
     - **Type** by selecting **On-Demand Scan (VirusScan Enterprise 8.8)** from the list.
     - **Tags** that determine which computers receive the on-demand scan task.
4. From the Client Task Builder configuration page that appears, configure each of the tabs. For details, refer to *Configuring on-demand scan tasks tabs*.

VirusScan Console

Configure the on-demand scan tasks with this user interface console.

Task

For option definitions, click **Help** in the interface.

1 Open the On-Demand Scan Properties page for an existing or new task:
   - Select and right-click an existing on-demand scan task, right-click, and select **Properties**.
   - Create a new task, select **Task | New On-Demand Scan Task**, right-click the new task, select **Properties**.

2 Configure each of the tabs in the On-Demand Scan Properties dialog box. Refer to the section, *Configuring on-demand scan tasks tabs* for details.

Configuring on-demand scan tasks tabs

VirusScan Enterprise includes a default on-demand scan task. You can use the default task and create new tasks.

Configure the options on each tab. For option definitions, click **?** or **Help** on each tab.

Tab definitions

Tab	Definitions
Scan Locations	• Specify which locations and items to scan. • Include running processes. • Include subfolders when scanning. • Include boot sectors when scanning. • Include registry keys and values when scanning. • Include cookie files when scanning. CAUTION: Failure to scan **Memory for rootkits** and **Running processes** leaves your system unprotected from numerous malware attacks. NOTE: When the **On-Demand Scan Progress** dialog appears, the locations to scan appear as a comma-separated string following **Scanning in**. As the scan processes are completed, they are removed from the string.
Scan Items	• Configure which files and file types to scan. • Enable on-demand scanning for unwanted programs. • Scan inside archives and decode MIME encoded files. • Scan files that have been migrated to storage. • Scan for potential threats that resemble unwanted programs, Trojan horses, and macro viruses.
Exclusions	Configure which disks, files, and folders to exclude from scanning by Name or Location, by File Type, or by File Age.
Performance	• Configure when to defer scans and for how long. • Specify the system utilization percentage. • Configure the sensitivity level for Artemis.
Actions	For threat detections: • Primary action to take when a threat is detected. • Secondary action to take on a threat detection if the first action fails. For unwanted program detections: • Primary action to take when an unwanted program is detected.

Tab	Definitions
	• Secondary action to take on an unwanted program detection if the first action fails. For allowed actions in the prompt dialog box, select the action.

Reports	• Enable activity logging.
	• Specify the log file name and location.
	• Specify the log file size limit.
	• Select the log file format.
	• Specify what to log besides scanning activity.
	• Specify which of the following to log in addition to scanning activity:
	  • Enable session settings
	  • Enable session summary
	  • Enable failure to scan encrypted files
	• Enable alerts when cookies are detected.

Task	Specify where the on-demand scan task runs. NOTE: This tab is only available via ePolicy Orchestrator.

Configuring global system cache

The VirusScan Enterprise scan cache saves a list of scanned files that are clean. You can improve your system performance by saving this clean file scan cache information during a system reboot. This allows the on-demand scanner to use this clean file cache information to reduce duplicate file scanning.

Configure the scan cache features using the General Options Policies and the Global Scan Settings tab using the following user interface consoles.

Tasks

- ePolicy Orchestrator 4.5 or 4.6
- ePolicy Orchestrator 4.0
- VirusScan Console

ePolicy Orchestrator 4.5 or 4.6

Configure the scan cache feature from the General Options Policies with this user interface console.

Task

For option definitions, click **?** or **Help** in the interface.

1 Click **Menu | Policy | Policy Catalog**, then from the Product list select **VirusScan Enterprise 8.8.0**. The Category list displays the policy categories for VirusScan Enterprise 8.8.0.

2 Edit an existing policy or create a new policy:
Edit an existing policy

  a From the **Category** list, select the policy category.

  b From the **Actions** column, click **Edit** to open the policy configuration page.

Create a new policy

a Click **New Policy** to open New Policy dialog box.

b From the **Create a new policy based on this existing policy** list, select one of the settings.

c Type a new policy name.

d Click **OK**. The new policy appears in the list of existing policies.

3 From the **Settings for** list, select **Workstation** or **Server**.

4 From the General Options Policies, click the **Global Scan Settings** tab to configure the VirusScan Enterprise scan cache option settings.

5 Configure the following global settings for the scan cache:

- Click **Enable saving scan data across reboots** — Saves the clean scan results when you reboot the system.
- Click **Allow On-Demand Scans to utilize the scan cache** — Allows the on-demand scanner to use the existing clean scan results to reduce duplicate scanning.

6 Click **Save**.

ePolicy Orchestrator 4.0

Configure the scan cache feature from the General Options Policies with this user interface console.

Task

For option definitions, click **?** or **Help** in the interface.

1 Click **Systems | Policy Catalog**, then from the Product list select **VirusScan Enterprise 8.8.0**. The Category list displays the policy categories for VirusScan Enterprise 8.8.0.

2 Edit an existing policy or create a new policy:
Edit an existing policy

a From the **Category** list, select the policy category.

b From the **Actions** column, click **Edit** to open the policy configuration page.
Create a new policy

a Click **New Policy** to open New Policy dialog box.

b From the **Create a new policy based on this existing policy** list, select one of the settings.

c Type a new policy name.

d Click **OK**. The new policy appears in the list of existing policies.

3 From the **Settings for** list, select **Workstation** or **Server**.

4 From the General Options Policies, click the **Global Scan Settings** tab to configure the VirusScan Enterprise scan cache option settings.

5 Configure the following global settings for the scan cache:

- Click **Enable saving scan data across reboots** — Saves the clean scan results when you reboot the system.
- Click **Allow On-Demand Scans to utilize the scan cache** — Allows the on-demand scanner to use the existing clean scan results to reduce duplicate scanning.

6 Click **Save**.

VirusScan Console

Configure the scan cache feature with this user interface console.

Task

For option definitions, click **Help** in the interface.

1. Click **Tools | General Options** and the **Global Scan Settings** tab to display the **Global Scan Settings** dialog box.
2. Configure the following global settings for the scan cache:
   - Click **Enable saving scan data across reboots** — Saves the clean scan results when you reboot the system.
   - Click **Allow On-Demand Scans to utilize the scan cache** — Allows the on-demand scanner to use the existing clean scan results to reduce duplicate scanning.
3. Click **OK**.

Scanning email on-delivery and on-demand

The email scanner automatically examines email messages and attachments.

The email is scanned using:

- **Microsoft Outlook** — Email is scanned on-delivery, or you can invoke on-demand email scans directly from Microsoft Outlook.

  NOTE: If you configure Heuristics and Artemis features, the email on-delivery and on-demand scanner uses heuristics to check for suspicious files. For details see, *How Artemis works*.

- **Lotus Notes** — Allows you to configure:
  - When accessed, email is scanned.
  - When invoked, on-demand email scans directly from Lotus Notes.
  - Which **Notes databases to exclude**.

Configure the On-Delivery Email Scan Policies using the following user interface consoles.

Tasks

▸ ePolicy Orchestrator 4.5 or 4.6
▸ ePolicy Orchestrator 4.0
▸ VirusScan Console
▸ On delivery email scan policies tab definitions

ePolicy Orchestrator 4.5 or 4.6

Configure the On-Delivery Email Scan Policies using this user interface console.

Task

For option definitions, click **?** in the interface.

1 Click **Menu | Policy | Policy Catalog**, then from the Product list select **VirusScan Enterprise 8.8.0**. The Category list displays the policy categories for VirusScan Enterprise 8.8.0.

2 Edit an existing policy or create a new policy:
Edit an existing policy

   a From the **Category** list, select the policy category.

   b From the **Actions** column, click **Edit Setting** to open the policy configuration page.
Create a new policy

   a Click **Actions | New Policy** to open New Policy dialog box.

   b From the **Category** list, select an existing policy.

   c From the **Create a new policy based on this existing policy** list, select one of the settings.

   d Type a new policy name.

   e Type any notes, if required.

   f Click **OK**. The new policy appears in the list of existing policies.

   g From the **Actions** column of the new policy, click **Edit Setting** to open the policy configuration page.

3 From the **Settings for** list, select **Workstation** or **Server**.

4 From the On-Delivery Email Scanner Policies configuration page, configure the options on each tab. Refer to *On delivery email scan policies tab definitions*.

ePolicy Orchestrator 4.0

Configure the On-Delivery Email Scan Policies using this user interface console.

Task

For option definitions, click **?** in the interface.

1 Click **Systems | Policy Catalog**, then from the Product list select **VirusScan Enterprise 8.8.0**. The Category list displays the policy categories for VirusScan Enterprise 8.8.0.

2 Edit an existing policy or create a new policy:
Edit an existing policy

   a From the **Category** list, select the policy category.

   b From the **Actions** column, click **Edit** to open the policy configuration page.
Create a new policy

   a Click **New Policy** to open New Policy dialog box.

   b From the **Create a new policy based on this existing policy** list, select one of the settings.

   c Type a new policy name.

   d Click **OK**. The new policy appears in the list of existing policies.

3 From the **Settings for** list, select **Workstation** or **Server**.

4 From the On-Delivery Email Scanner Policies configuration page, configure the options on each tab. Refer to *On delivery email scan policies tab definitions*.

VirusScan Console

Configure the On-Delivery Email Scan Policies using this user interface console.

Task

For option definitions, click **?** in the interface.

1. From the **Task** list, right-click **On-Delivery Email Scan Properties**, then click **Properties** to open the dialog box.
2. From the On-Delivery Email Scan Properties dialog box, configure the options on each tab. Refer to *On delivery email scan policies tab definitions*.

On delivery email scan policies tab definitions

Tab	Definitions
Scan Items	• Specify which attachments and messages to scan. • Scan using heuristics for potential threats that resemble malware, unknown macro viruses, and find attachments with multiple extensions. • Scan compressed files inside archives and decode MIME encoded files. • Enable the email scanner to scan for unwanted programs. • Scan email message bodies. • Configure the sensitivity level for Artemis. NOTE: This option is available only for **On-Delivery Email Scanning**.
Actions	For threat detections: • Primary action to take when a threat is detected. • Secondary action to take if the first action fails. For unwanted program detections: • Primary action to take when an unwanted program is detected. • Secondary action to take if the first action fails. For allowed actions in the prompt dialog box, select the action.
Alerts	• Notify another user when a threatened email message is detected. • Specify the message that displays to the user when prompting for action.
Reports	• Enable activity logging. • Specify the log file name and location. • Specify the log file size limit. • Select the log file format. • Specify what to log besides scanning activity.
Notes Scanner Settings	NOTE: This tab is available only for **On-Delivery Email Scanning**. Configure Lotus Notes specific settings. • Scan all server databases. • Scan server mailboxes in the specified mailbox root folder. • Notes applications to ignore.

Part III - Response: Handling Threats

Responding to threats is the third step in a protection strategy to detect and clean malware that attempts to gain access to your system.

Contents

- Detections and responses
- Configuring alerts and notifications
- Access queries and dashboards
- Configuring emergency DATs

Detections and responses

When a threat occurs and is detected, what happens next is determined by how VirusScan Enterprise is configured to respond and which feature detects the threat. Understanding these differences helps you to develop and implement an effective strategy.

Contents

- What happens when a detection occurs
- System access point violations
- Buffer overflow detections
- Unwanted program detections
- On-access scan detections
- On-demand scan detections
- Email scan detections
- Quarantined items

What happens when a detection occurs

When a detection occurs and is detected, the reaction depends on how VirusScan Enterprise is configured.

If VirusScan Enterprise is configured to clean automatically (the suggested default setting), the resulting action depends on the cleaning instruction from the DAT file. For example, if the scanner cannot clean a file, or if the file has been damaged beyond repair, the scanner might delete the file or take the secondary action, depending on the definition in the DAT file.

When the scanner denies access to files with potential threats, it adds an .mcm extension to the file name when the file is saved.

System access point violations

When a system access point is violated, the action taken depends on how the rule was configured.

If the rule was configured to:

- **Report** — Information is recorded in the log file.
- **Block** — Access is denied.

Review the log file to determine which system access points were violated and which rules detected the violations, then configure the access protection rules to allow users access to legitimate items and prevent users from accessing protected items.

Use these scenarios to decide which action to take as a response.

Detection type	Scenarios
Unwanted processes	• If the rule reported the violation in the log file, but did not block the violation, select the **Block** option for the rule. • If the rule blocked the violation, but did not report the violation in the log file, select the **Report** option for the rule. • If the rule blocked the violation and reported it in the log file, no action is necessary. • If you find an unwanted process that was not detected, edit the rule to include it as blocked.
Legitimate processes	• If the rule reported the violation in the log file, but did not block the violation, deselect the **Report** option for the rule. • If the rule blocked the violation and reported it in the log file, edit the rule to exclude the legitimate process from being blocked.

Buffer overflow detections

When a buffer overflow detection occurs, the scanner blocks the detection and a message is recorded in the **On-Access Scan Messages** dialog box. You can view the dialog box, then decide whether to take any additional actions.

The actions you can take include:

- **Removing the message** — Select the item in the list, then click **Remove**.
- **Creating an exclusion** — If the detected process is one that you legitimately use, or a false positive, create an exclusion using the information in the **On-Access Scan Messages** dialog box. Review the information in the **Name** column to determine the name of the process that owns the writable memory that is making the call. Use the process name to create an exclusion.
- **Submitting a sample to McAfee Labs for analysis** — If the scanner detects something that you think it should not detect, or does not detect something that you think it should, you can send a sample to McAfee Labs.

Unwanted program detections

The on-access, on-demand, and email scanners detect unwanted programs based on the **Unwanted Programs Policy** you configured. When a detection occurs, the scanner that detected the potentially unwanted program applies the action that you configured on the **Actions** tab for that scanner.

Review the information in the log file, then decide whether to take any of these additional actions:

- **Fine-tune scanning items** — This makes your scans more efficient.
- **Exclude it from detection** — If a legitimate program was detected, you can configure it as an exclusion.
- **Add it to the user-defined detection list** — If an unwanted program was not detected, you can add it to the user-defined detection list.
- **Submit a sample to McAfee Labs for analysis** — If the scanner detects something that you think it should not detect or does not detect something that you think it should, you can send a sample to McAfee Labs.

On-access scan detections

When the on-access scanner detects any malware it takes action according to how you configured the On-Access Scan Properties, in the Actions tab. Also, a message is recorded in the On-Access Scan Messages dialog box.

Review the information in the activity log and the **On-Access Scan Messages** dialog box, then decide whether to take any of these additional actions.

- **Fine-tune scanning items** — To make scanning more efficient, exclude legitimate files that VirusScan Enterprise might consider threats, and delete known threats that might be saved in the quarantine.
- **Right-click an item in the On-Access Scan Messages dialog box** — To perform these actions:
  - **Clean File** — Attempts to clean the file referenced by the selected message.
  - **Delete File** — Deletes the file referenced by the selected message. The file name is recorded in the log so that you can restore it from the Quarantine Manager.
  - **Select All (ctrl+a)** — Selects all messages in the list.
  - **Remove Message from List (ctrl+d)** — Removes the selected message from the list. Messages that have been removed from the list are still visible in the log file.
  - **Remove All Messages** — Removes all message from the list. Messages that have been removed from the list are still visible in the log file.
  - **Open On-Access Scanner Log File** — Opens the on-access scanner activity log file. This option is available only from the File menu.
  - **Open Access Protection Log File** — Opens the access protection activity log file. This option is available only from the File menu.
  - If an action is not available for the current message, the corresponding icon, button, and menu items are disabled. For example, **Clean** is not available if the file has already been deleted, or **Delete** is not available if the administrator has suppressed the action.
  - **Clean File** — A file cannot be cleaned if the DAT file has no cleaner or it has been damaged beyond repair. If the file cannot be cleaned, the scanner appends an .mcm extension to the file name and denies access to it. An entry is recorded in the log file. In this case, we recommend that you delete the file and restore it from a clean backup copy.
- **Submit a sample to McAfee Labs for analysis** — If the scanner detects something that you think it should not detect, or does not detect something that you think it should, you can send a sample to McAfee Labs.

On-demand scan detections

When an on-demand detection occurs, the scanner takes action according to how you configured the **On-Demand Scan Properties**, **Actions** tab.

Review the information in the log file, then decide whether to take any of these additional actions:

- **Fine-tune scanning items** — This make your scans more efficient.
- **Prompt for action** — Configured the scanner to **Prompt for action** by selecting the action from the On-Demand Scan Progress dialog box.
- **Submit a sample to McAfee Labs for analysis** — If the scanner detects something that you think it should not detect, or does not detect something that you think it should, you can send a sample to McAfee Labs.

Email scan detections

When an email scan detection occurs, the scanner takes action according to how you configured the **On-Delivery Email Scan Properties** or **On-Demand Email Scan Properties**, **Actions** tab.

Review the information in the log file, then decide whether to take any of these additional actions:

- **Fine-tune scanning items** — This makes your scans more efficient.
- **Submit a sample to McAfee Labs for analysis** — If the scanner detects something that you think it should not detect, or does not detect something that you think it should, you can send a sample to McAfee Labs.

Quarantined items

Items that are detected as threats, are cleaned or deleted. Plus, a copy of the item is converted to a non-executable format and saved in the Quarantine folder. This allows you to perform processes on the quarantined items after downloading a later version of the DAT, that possibly contains information that can clean the threat.

These additional processes include:

- Restore.
- Rescan.
- Delete.
- Check for false positive.
- View detection properties.

NOTE: Quarantined items can include multiple types of scanned objects. These objects include files, cookies, registries, or anything VirusScan Enterprise scans for malware.

Configuring the quarantine policy

Access the Quarantine Manager Policies and configure the quarantine policy, if needed, or accept the default settings.

Configure the Quarantine Manager Policies using the following user interface consoles.

Tasks

- ePolicy Orchestrator 4.5 or 4.6
- ePolicy Orchestrator 4.0
- VirusScan Console

ePolicy Orchestrator 4.5 or 4.6

Configure the Quarantine Manager Policies using this user interface console.

Task

For option definitions, click **?** in the interface.

1. Click **Menu | Policy | Policy Catalog**, then from the Product list select **VirusScan Enterprise 8.8.0**. The Category list displays the policy categories for VirusScan Enterprise 8.8.0.
2. Edit an existing policy or create a new policy:
   Edit an existing policy
   a. From the **Category** list, select the policy category.
   b. From the **Actions** column, click **Edit Setting** to open the policy configuration page.
   Create a new policy
   a. Click **Actions | New Policy** to open New Policy dialog box.
   b. From the **Category** list, select an existing policy.
   c. From the **Create a new policy based on this existing policy** list, select one of the settings.
   d. Type a new policy name.
   e. Type any notes, if required.
   f. Click **OK**. The new policy appears in the list of existing policies.
   g. From the **Actions** column of the new policy, click **Edit Setting** to open the policy configuration page.
3. From the **Settings for** list, select **Workstation** or **Server**.
4. From the **Quarantine** page, accept the default quarantine directory, or select a different directory.
5. To configure the days the quarantined items are saved, click **Automatically delete quarantined data after the specified number of days** and type the **Number of days to keep backed-up data in the quarantine directory**.

ePolicy Orchestrator 4.0

Configure the Quarantine Manager Policies using this user interface console.

Task

For option definitions, click **?** in the interface.

1. Click **Systems | Policy Catalog**, then from the Product list select **VirusScan Enterprise 8.8.0**. The Category list displays the policy categories for VirusScan Enterprise 8.8.0.
2. Edit an existing policy or create a new policy:
   Edit an existing policy

a From the **Category** list, select the policy category.

b From the **Actions** column, click **Edit** to open the policy configuration page.

Create a new policy

a Click **New Policy** to open New Policy dialog box.

b From the **Create a new policy based on this existing policy** list, select one of the settings.

c Type a new policy name.

d Click **OK**. The new policy appears in the list of existing policies.

3 From the **Settings for** list, select **Workstation** or **Server**.

4 From the **Quarantine** page, accept the default quarantine directory, or select a different directory.

5 To configure the days the quarantined items are saved, click **Automatically delete quarantined data after the specified number of days** and type the **Number of days to keep backed-up data in the quarantine directory**.

VirusScan Console

Configure the Quarantine Manager Policy using this user interface console.

Task

For option definitions, click **?** in the interface.

1 From the **Task** list, right-click **Quarantine Manager Policy**, then click **Properties** to open the Quarantine Manager Policy dialog box.

2 Accept the default quarantine directory, or select a different directory.

3 To configure the days the quarantined items are saved, click **Automatically delete quarantined data after the specified number of days** and type the **Number of days to keep backed-up data in the quarantine directory**.

Managing quarantined items

Process quarantined items to further check these items and manually delete or restore them using the VirusScan Console.

NOTE: From the ePolicy Orchestrator console, use the **Restore from Quarantine** client task to restore quarantined items.

Task

For option definitions, click **?** in the interface.

1 From the VirusScan Console Task list, click **Quarantine Manager Policy** to open the Quarantine Manager Policy dialog box.

2 Click the **Manager** tab, and right-click an item to access these advanced options:

- Restore.
- Rescan.
- Delete.
- Check for false positive.

- View detection properties.

3 A dialog box appears and describes the affect of your attempt.

Configuring alerts and notifications

Being notified when a potential threat is detected is an important part of protecting your environment. You can use the ePolicy Orchestrator console, or VirusScan Console, to configure how you are notified when detections occur. Both consoles allow configuring alerting options, filter alerts by severity to limit alert traffic, and configure local alerting options.

Configuring alerts

Configure the alerts and notification properties that appear when the various scanners detect a threat.

Use the same process to configure alerts for these policies:

- Alert Policies
- Buffer Overflow Protection Policies
- On-Delivery Email Scan Policies

Configure the alert notification policies for all three policies using the following user interface consoles.

Tasks

▸ ePolicy Orchestrator 4.5 or 4.6
▸ ePolicy Orchestrator 4.0
▸ VirusScan Console
▸ Alert policy tab configuration

ePolicy Orchestrator 4.5 or 4.6

Configure the Alert Policies with this user interface console.

Task

For option definitions, click **?** in the interface.

1 Click **Menu | Policy | Policy Catalog**, then from the Product list select **VirusScan Enterprise 8.8.0**. The Category list displays the policy categories for VirusScan Enterprise 8.8.0.

2 Edit an existing policy or create a new policy:
Edit an existing policy

a From the **Category** list, select the policy category.

b From the **Actions** column, click **Edit Setting** to open the policy configuration page.
Create a new policy

a Click **Actions | New Policy** to open New Policy dialog box.

b From the **Category** list, select an existing policy.

c From the **Create a new policy based on this existing policy** list, select one of the settings.

d Type a new policy name.

e Type any notes, if required.

f Click **OK**. The new policy appears in the list of existing policies.

g From the **Actions** column of the new policy, click **Edit Setting** to open the policy configuration page.

3 From the **Settings for** list, select **Workstation** or **Server**.

4 Configure the alert policy tabs. Refer to *Alert policy tab configuration*.

ePolicy Orchestrator 4.0

Configure the Alert Policies with this user interface console.

Task

For option definitions, click **?** in the interface.

1 Click **Systems | Policy Catalog**, then from the Product list select **VirusScan Enterprise 8.8.0**. The Category list displays the policy categories for VirusScan Enterprise 8.8.0.

2 Edit an existing policy or create a new policy:
Edit an existing policy

a From the **Category** list, select the policy category.

b From the **Actions** column, click **Edit** to open the policy configuration page.
Create a new policy

a Click **New Policy** to open New Policy dialog box.

b From the **Create a new policy based on this existing policy** list, select one of the settings.

c Type a new policy name.

d Click **OK**. The new policy appears in the list of existing policies.

3 From the **Settings for** list, select **Workstation** or **Server**.

4 Configure the alert policy tabs. Refer to *Alert policy tab configuration*.

VirusScan Console

Configure the Alerts properties with this user interface console.

Task

For option definitions, click **Help** in the interface.

1 Open one of the following properties to configure the alerts:

- **Alerts** — Click **Tools | Alerts** to open the Alert Properties dialog box.
- **Buffer Overflow Protection** — Select the **Buffer Overflow Protection** task, right-click **Properties** to open the Buffer Overflow Protection properties dialog box.
- **On-Delivery Email Scanner** — Select the **On-Delivery Email Scanner** task, right-click **Properties** to open the On-Delivery Email Scanner properties dialog box. Click **Alerts** tab.

2 Configure the alert policy tabs. Refer to *Alert policy tab configuration*.

Alert policy tab configuration

Task	Configuration
Alerts Policies	**1** From the **Actions** column, select **Edit Settings** to open the Alerts Policies page. **2** Configure the **Components that generate alerts** and **Alert Manager options**.
Buffer Overflow Protection Policies	**1** From the **Actions** column, select **Edit Settings** to open the Buffer Overflow Protection page. **2** Next to **Client system warning**, click **Show the messages dialog box when a buffer overflow is detected**.
On-Delivery Email Scan Policies	**1** From the **Actions** column, select **Edit Settings** to open the Buffer On-Delivery Email Scan Policies page. **2** Click **Alerts** and configure **Email alert for user** and **Prompt for action message**.

Access queries and dashboards

Use queries and dashboards to monitor activity and help you determine which action to take on detections. You can use the predefined queries and dashboards, and create additional ones to meet your needs. For information about queries and dashboards, see the ePolicy Orchestrator product documentation.

Queries

Depending on your ePolicy Orchestrator version, navigate to the Queries using:

ePolicy Orchestrator 4.5 and 4.6

1 Click **Menu | Reporting | Queries** and the Queries page appears.

2 In the Queries pane, type VSE: in **Quick find** and click **Apply**. Only the VirusScan Enterprise queries appear in the list.

ePolicy Orchestrator 4.0

1 Click **Reporting | Queries** and the Queries page appears.

2 In the Queries list, in the right-hand pane, scroll down to find the queries beginning with "VSE:".

These predefined queries are available:

- VSE: Compliance Over the Last 30 Days
- VSE: Computers with Threats Detected per Week
- VSE: Current DAT Adoption
- VSE: DAT Adoption Over the Last 24 Hours
- VSE: DAT Deployment
- VSE: Detection Response Summary
- VSE: Number of Detections by Tag
- VSE: Threats Detected Over the Previous 2 Quarters
- VSE: Threats Detected per Week
- VSE: Top 10 Access Protection Rules Broken
- VSE: Top 10 Buffer Overflows Detected
- VSE: Top 10 Computers with the Most Detections
- VSE: Top 10 Detected Threats
- VSE: Top 10 Threat Sources

VSE: Spyware Detected in the Last 24 Hours
VSE: Spyware Detected in the Last 7 Days
VSE: Summary of Threats Detected in the Last 24 Hours
VSE: Summary of Threats Detected in the Last 7 Days
VSE: Threat Count by Severity
VSE: Threat Names Detected per Week
VSE: Threats Detected in the Last 24 Hours
VSE: Threats Detected in the Last 7 Days
VSE: Top 10 Threats per Threat Category
VSE: Top 10 Users with the Most Detections
VSE: Unwanted Programs Detected in the Last 24 Hours
VSE: Unwanted Programs Detected in the Last 7 Days
VSE: Version 8.5 Compliance
VSE: Version 8.7 Compliance
VSE: Version 8.8 Compliance

Dashboards

To access dashboards in the ePolicy Orchestrator console, go to **Dashboards**.

These predefined dashboards are available:

- VSE: Version 8.8 Compliance
- VSE: Trending Data
- VSE: Current Detections

Configuring emergency DATs

Emergency DATs can be downloaded manually to protect your system against a major virus until the normal VirusScan DAT update is released.

NOTE: These EXTRA.DAT files should be automatically downloaded as part of your client system AutoUpdates, or ePolicy Orchestrator scheduled pull process. Refer to the section, *Updating detection definitions*.

Configuring emergency DATs is a two-step process.

1. Download the emergency DAT file. This process is the same for both client systems and ePolicy Orchestrator repositories.
2. Install the emergency DAT file. This process is different for client systems and ePolicy Orchestrator 4.0, 4.5, and 4.6 servers.

Each of the these processes is described in this section.

Contents

- About emergency DATs
- Downloading a SuperDAT file
- Installing the SuperDAT files on an ePolicy Orchestrator repository
- Installing the EXTRA.DAT file on a client system

About emergency DATs

Emergency DATs, called EXTRA.DAT files, contain information used by VirusScan Enterprise to detect a new virus. When new malware is discovered and extra detection is required, an

EXTRA.DAT file, packaged in a SuperDAT (SDAT) executable file, is made available by McAfee Labs until the normal VirusScan Enterprise DAT update is released.

NOTE: McAfee no longer posts individual EXTRA.DAT files on the Security Updates download site. To get an EXTRA.DAT file for a specific threat, go to the **McAfee Avert Labs Extra.dat Request Page** at, https://www.webimmune.net/extra/getextra.aspx.

SuperDAT packages

The SuperDAT executable is a self-installing package. It might also include a new virus-scanning engine and other program components. The file uses the name format sdatXXXX.exe, where *XXXX* is the four-digit DAT version number, for example sdat4321.exe.

When an EXTRA.DAT file is extracted from the SuperDAT executable and added to the Engine folder on your hard drive, it is used by VirusScan Enterprise, in addition to its normal DAT files, to detect the new virus. This enables VirusScan Enterprise to protect your computer from the new malware code until the official DAT update is released that contains the malware detection and removal information. Once the official DAT update is released and installed, the EXTRA.DAT file is no longer needed.

NOTE: EXTRA.DAT files remain on your file system for 5 days, then they are automatically deleted. You should keep your VirusScan Enterprise DAT files updated by automatically downloading and installing the official daily updates.

Downloading a SuperDAT file

To download a SuperDAT (SDAT) file, you must connect to the McAfee Security Updates page.

Before you begin

- You must have a valid grant number to access the McAfee Security Updates page: http://www.mcafee.com/apps/downloads/security_updates/dat.asp
- You must have Administrator privileges to update McAfee software.

Task

1. Go to the McAfee Security Updates page at the following URL: http://www.mcafee.com/apps/downloads/security_updates/dat.asp
2. Click the **SuperDATs** tab, and double-click the sdatXXXX.exe file, where *XXXX* is the number of the most recent DAT update.

   NOTE: Double-click the readme.txt file for additional information.
3. Save the executable file to a temporary location, using its default name.

Installing the SuperDAT files on an ePolicy Orchestrator repository

After you download the SuperDAT file you must install it on ePolicy Orchestrator server.

Before you begin

You must have Administrator privileges to update the McAfee software.

Task

For option definitions, click **?** in the interface.

1 To install the SuperDAT file on an ePolicy Orchestrator server, use one of the following:

Server	Steps...
ePolicy Orchestrator 4.5 and 4.6	1 Click **Menu | Software | Master Repository** to open the Packages in Master Repository page in the ePolicy Orchestrator 4.5 and 4.6 console. 2 Click **Actions | Check in Packages**.
ePolicy Orchestrator 4.0	1 Click **Software | Master Repository** to open the Packages in Master Repository page. 2 Click **Check in Packages** to open the Check in Packages page.

2 Select **Super DAT (EXE)**, browse to the location where you want to save the file, then click **Next**.

3 Confirm your selection, then click **Save**. The Packages in Master Repository page displays the new DAT package in the Name list.

Installing the EXTRA.DAT file on a client system

You can install the EXTRA.DAT file on a standalone client system after you have downloaded the file from McAfee Labs. For EXTRA.DAT file downloading information, refer to *About emergency DATs*.

Before you begin

You must have Administrator privileges to update the McAfee Security software.

Task

For option definitions, click **Help** in the interface.

1 Once the download is complete, locate the file you just saved, run the executable file, and follow the instructions in the wizard.
The executable EXTRA.DAT file performs the following steps:

- Unloads McAfee memory-resident software or stops services that use your current DAT files.
- Copies new DAT files to the appropriate program directories.
- Restarts the software components needed to continue scans with your new DAT files.

2 When the installer has finished updating your DAT files, you can delete the downloaded file, or keep a copy available for further updates.

Part IV - Monitoring, Analyzing, and Fine-Tuning Your Protection

After the initial configuration of your protection strategy, you should monitor, analyze, and fine-tune your protection. By checking the activity log files and ePolicy Orchestrator queries, you can improve the performance and the protection of VirusScan Enterprise systems.

Contents

- Monitoring activity in your environment
- Analyzing your protection

Monitoring activity in your environment

An important step in a protection strategy is monitoring the malware events that occur on your systems. To do this you need to understand the tools to use and how to use them.

Tools for monitoring activity

VirusScan Enterprise provides many ways to monitor the threat events that occur on your protected systems. The tools you use depend on whether you use the ePolicy Orchestrator console or the VirusScan Console.

Query and dashboard uses

Use the ePolicy Orchestrator queries and dashboards to monitor activity on your McAfee managed systems, and determine what action to take on detections.

For additional information about queries and dashboard see the following:

- Refer to *Access queries and dashboards* for a complete list of the predefined queries available.
- Refer to the ePolicy Orchestrator product documentation for information about modifying and creating queries and dashboards.

Activity log uses

The VirusScan Console activity logs store a record of events that occur on your VirusScan Enterprise protected system. The following table describes the log files.

All activity log files are stored, by default, at one of the following locations, depending on your operating system:

- For Microsoft Windows XP, Microsoft Vista, Microsoft 2000 Server, Microsoft 2003 Server, and Microsoft 2008 Server — C:\Documents and Settings\All Users\Application Data\McAfee\DesktopProtection
- For Microsoft Windows 7 — C:\ProgramData\McAfee\DesktopProtection

Table 1: Log files

File name	How to access	Displays
AccessProtectionLog.txt	In the **Task** column, click **Access Protection | Reports** tab, and click **View Log**.	Date, time, event, user, and name of file.
BufferOverflowProtectionLog.txt	In the Task column, click **Buffer Overflow Protection | Reports** tab, and click **View Log.**	Date, time, what executable caused the overflow, and if it was a stack or heap overflow.
MirrorLog.txt	• For Microsoft Windows XP, Microsoft Vista, Microsoft 2000 Server, Microsoft 2003 Server, and Microsoft 2008 Server — C:\Documents and Settings\All Users\Application Data\McAfee\DesktopProtection • For Microsoft Windows 7 — C:\ProgramData\McAfee\DesktopProtection	Date, time, path to the mirror files, and any additional information.
OnAccessScanLog.txt	In the **Task** column, click **On-Access Scanner | General Settings | Reports** tab, and click **View Log**.	Date, time, detected malware, what action was taken, and what was found.
OnDemandScanLog.txt	From the menu, click **Task | View Log.**	Date, time scan occurred, any action performed, to what file, and what was found.
UpdateLog.txt	• For Microsoft Windows XP, Microsoft Vista, Microsoft 2000 Server, Microsoft 2003 Server, and Microsoft 2008 Server — C:\Documents and Settings\All Users\Application Data\McAfee\DesktopProtection • For Microsoft Windows 7 — C:\ProgramData\McAfee\DesktopProtection	Date, time update occurred, who initiated the update, and any information about the update.

Running an example query

Run a simple query to determine how many threats were detected per week on your managed systems. This query is just an example. The queries you run or configure depend on the information you want to retrieve from the ePolicy Orchestrator database.

Task

For option definitions, click **?** in the interface.

1 Use one of the following to run a simple ePolicy Orchestrator query:
   - ePolicy Orchestrator 4.5 or 4.6 — Click **Menu | Reporting | Queries**, scroll down to the VSE: Threats Detected per Weeks query, and click **Run**.
   - ePolicy Orchestrator 4.0 — Click **Reporting | Queries**, scroll down to the VSE: Threats Detected per Weeks query, and click **Run**.

2 If any threats were detected, the query output display shows the following:
   - A bar chart with the number of threats and in which weeks they occurred.

- A table with similar information and a total of the threats.

NOTE: You can click on the bar chart or table information to open the ePolicy Orchestrator database data.

3 Click **Close** to return to the queries list.

There are many more default queries you can run, plus you can create your own queries. See the ePolicy Orchestrator documentation for details.

Analyzing your protection

Analyzing the protection of your VirusScan Enterprise protected system should be an on-going process and improves the protection and performance of your system.

Contents

▸ The importance of analysis
▸ Analyzing protection examples

The importance of analysis

Analyzing your protection allows you to determine which kind of threats you are facing, from where, how often they are found, and which systems are being targeted. For example, if one system is being continuously attacked, maybe that system should be moved to a more secure part of your network and have increased security enabled to protect it.

This analysis is also helpful when:

- Creating reports for IT and managers.
- Capturing information used to create scripts and queries.
- Monitoring network access time and VirusScan Enterprise update network usage.

Analyzing protection examples

You can use the steps in these analysis examples as a framework for analyzing most VirusScan Enterprise protection scenarios.

These examples describe seeing a spike of malware attacks and determining:

- Where and when the attacks occurred
- What malware was used in the attack
- How the attack affected the system

Tasks

▸ ePolicy Orchestrator 4.5 or 4.6
▸ ePolicy Orchestrator 4.0
▸ VirusScan Console

ePolicy Orchestrator 4.5 or 4.6

This example analysis is used as a framework for analyzing most VirusScan Enterprise protection scenarios with ePolicy Orchestrator 4.5 or 4.6.

Before you begin

You must have direct or remote access to a VirusScan Enterprise protected system to perform this example analysis.

Task

For option definitions, click **?** in the interface.

1. Determine where and when the attacks occurred:
   a. Click **Menu | Reporting | Queries** to open the Queries pane.
   b. Type Malware in the **Quick find** search and click **Apply**. The Malware Detection History query appears in the Queries list.
   c. Select the query and click **Actions | Run**. The query returns the number of recent attacks.
2. To determine which malware was used in the attack, click **Menu | Reporting | Threat Event Log** to display the Threat Event Log.
3. Double-click the log event to display the details page in the pane. From the log event you can determine:
   - **Threat Source IP Address** and target are shown to help you determine what actions to take.
   - **Threat Name** and **Threat Type** describe what malware was used in the attack.
   - **Threat Event Descriptions** describe how the attack affected the system and what actions were taken on the threat.

ePolicy Orchestrator 4.0

This example analysis is used as a framework for analyzing most VirusScan Enterprise protection scenarios with ePolicy Orchestrator 4.0.

Before you begin

You must have direct or remote access to a VirusScan Enterprise protected system to perform this example analysis.

Task

For option definitions, click **?** in the interface.

1. Determine where and when the attacks occurred:
   a. Click **Reporting | Queries** to open the Queries list.
   b. From the Public Queries list, select **ePO: Malware Detection History** and click **More Actions | Run**. The Malware Detection History query appears in the Queries list.
2. To view the event that triggered the malware detection, click **Reporting | Event Log**, the query returns the number of recent attacks.
3. Double-click the log event to display the details page in the pane. From the log event you can determine:

- **Threat Source IP Address** and target are shown to help you determine what actions to take.
- **Threat Name** and **Threat Type** describe what malware was used in the attack.
- **Threat Event Descriptions** describe how the attack affected the system and what actions were taken on the threat.

VirusScan Console

This example analysis is used as a framework for analyzing most VirusScan Enterprise protection scenarios using VirusScan Console.

Before you begin

You must have direct or remote access to a VirusScan Enterprise protected system to perform this example analysis.

Task

For option definitions, click **Help** in the interface.

1. From the **Task** list, right-click **On-Access Scanner** and select **Statistics** from the list. The On-Access Scan Statistics dialog box appears.
2. In the Scanning Statistics group, note the number of Detected files that appears. If this is any number other than zero, click **Properties** to open the On-Access Scan Properties dialog box.
3. Click the **Reports** tab and **View Log**. The OnAccessScanLog.txt file appears in a NotePad window.
4. From this output you can determine:
   - What malware was used in the attack. For example,

     C:\...\eicar.com EICAR test file
   - How the attack affected the system. For example,

     (Clean failed because the detection isn't cleanable)
   - What actions were taken on the threat. For example,

     Deleted
5. Use the information in the previous step to determine if the source, or target systems need their virus protection settings modified, or if you want to take some other action.

Appendix

There are more configuration and troubleshooting features you can use to improve the protection provided by VirusScan Enterprise. These features use familiar tools, for example, the ePolicy Orchestrator console, the command-line, and the Internet.

Contents

- Configuring ePolicy Orchestrator server tasks
- Using the command line with VirusScan Enterprise
- Connecting to remote systems
- Submit threat samples for analysis
- Access the McAfee Labs Threat Library
- Troubleshooting

Configuring ePolicy Orchestrator server tasks

Server tasks, configured in ePolicy Orchestrator, allow you to schedule and run automatic tasks to manage your server and the VirusScan Enterprise software.

VirusScan Enterprise server tasks can be configured to automatically generate the following:

- **Export Policies** — Runs a policy report and stores the policy information in a file.
- **Run Query** — Runs a preconfigured query and, if configured, displays the output on the ePolicy Orchestrator dashboard.
- **Export Queries** — Runs a preconfigured query and either emails the report to a configured address or exports the report to a configured location.

  NOTE: The Export Queries feature is only avalable using ePolicy Orchestrator 4.5 and 4.6.

The ePolicy Orchestrator server has the following VirusScan Enterprise server tasks already installed:

- **VSE: Compliance Over the Last 30 Days** — Runs a query once a day, which stores McAfee anti-virus software compliance status.
- **VSE: DAT Adoption Over the Last 24 Hours** — Runs a query every hour, which stores McAfee anti-virus software DAT version status.

NOTE: To configure custom server tasks, see the appropriate ePolicy Orchestrator product guide for detailed instruction.

Configuring example server task

To enable and configure the existing ePolicy Orchestrator VSE: Compliance Over the Last 30 Days server task.

Before you begin

You must have Administrator privileges to update the ePolicy Orchestrator configuration.

Task

For option definitions, click **?** in the interface.

1. Open the existing Server Task page from ePolicy Orchestrator.
   - ePolicy Orchestrator 4.5 or 4.6 — Click **Menu | Automation | Server Tasks**.
   - ePolicy Orchestrator 4.0 — Click **Automation | Server Tasks**.
2. In the Name column, find the **VSE: Compliance Over the Last 30 Days** task and click **Edit** in the Actions column. The Server Task Builder page appears.
3. Next to Schedule Status, click **Enabled**, then click **Next**. The Actions page appears. Next to 1. Actions, **Run Query** is selected by default.
4. Next to Query, **VSE: Version 8.8.0 Compliance** is selected by default. If needed, change the Language setting.
   In the Sub-Actions group, confirm the following items are selected by default:
   - **Generate Compliance Event** in the Sub-Actions list.
   - **Specific number of target systems** is selected with **1** in the text-box.
5. Add VirusScan Enterprise, Version 8.7 and 8.5 compliance actions to the server task:
   a In the 1. Actions row, click plus (**+**) to open an additional actions row.
   b Configure the following in the new 2. Actions row:
   - Next to 2. Actions, select **Run Query** from the list.
   - Next to Query, select **VSE: Version 8.7 Compliance** from the list.
   - If needed, change the Language setting.
   - Confirm, in the Sub-Actions group, the **Generate Compliance Event** and **Specific number of target systems** is selected with **1** in the text-box.

   c In the 2. Actions row, click plus (**+**) to open an additional actions row.
   d Configure the following in the new 3. Actions row:
   - Next to 3. Actions, select **Run Query** from the list.
   - Next to Query, select **VSE: Version 8.5 Compliance** from the list.
   - If needed, change the Language setting.
   - Confirm, in the Sub-Actions group, the **Generate Compliance Event** and **Specific number of target systems** is selected with **1** in the text-box.
6. Click **Next** to open the Schedule page.
7. Select how often to run the server task from the **Schedule type** list.
   - Set the **Start date**, or accept the current date as the default.
   - Set the**End date**, or accept **No end date** as the default.
   - Set the**Schedule**, accept the default, or set another start time for the query to run.
8. Click **Next** to open the Summary page. Confirm the information configured is correct.
9. Click **Save**, then the Server Task page reappears.
10. Confirm the VSE: Compliance Over the Last 30 Days server task has its **Status** enabled and the **Next Run** date and time settings are correct.

Using the command line with VirusScan Enterprise

You can use the Command Prompt to run some basic VirusScan Enterprise processes. You can install, configure, and update VirusScan Enterprise from the command line. Command line installation options are described in the *VirusScan Enterprise Installation Guide*.

Command line scan example

To scan all files, update the log files with the results of the scan, and automatically close the on-demand scan dialog box when completed, enter the following command:

scan32 /all /log /autoexit

Command line update example

To update the DAT files, scanning engine, and product quietly, or not display the McAfee Update dialog box during the update, enter the following command

mcupdate /update /quiet

On-demand scanning command-line options

VirusScan Enterprise uses the on-demand scanner *SCAN32.EXE* to detect threats. You can use the same executable command, SCAN32, from the command line, or as part of a batch file, to run scans.

The *SCAN32* syntax does not require any specific order on its elements, except that you cannot separate a property and its value. This syntax consists of:

- **File name** — The name of the executable file: *SCAN32.EXE*.
- **Options** — The option is preceded by a forward slash (/) character and is not case-sensitive.

The command format is:

SCAN32 PROPERTY=VALUE [,VALUE] [/option].

Following is a scan32.exe command example:

scan32.exe PRIORITY /normal

In this example:

- "PRIORITY" is a command value.
- "/normal" is a value option.

On-demand scanning values and options

Command-line value	Definition with options
ALL	Scans all files in the target folder.
ALLOLE	Scans default files plus all Microsoft Office documents.
ALWAYSEXIT	Forces exit from on-demand scan, even if scan completed with error/failure.
APPLYNVP	Scans for the potentially unwanted programs that are defined in the Unwanted Programs Policy.
ARCHIVE	Scans archive files such as .ZIP, .CAP. LZH, and .UUE files.
AUTOEXIT	Exits the on-demand scanner upon completion of a non-interactive scan.

Command-line value	Definition with options
CLEAN	Cleans the detected target file when a potentially unwanted program is found.
CLEANA	Cleans the detected file when an unwanted program is found.
CONTINUE	Continues scanning after a potentially unwanted program is detected.
CONTINUE2	Continues scanning after a potentially unwanted program is detected and the primary action has failed.
CONTINUEA	Continues scanning after an unwanted program is detected.
CONTINUEA2	Continues scanning after an unwanted program is detected and the primary action has failed.
DEFEXT	Adds file extensions that you specify as parameters to the list of selected file types that are included in scanning.
DELETE	Deletes the detected file when a potentially unwanted program is found.
DELETE2	Deletes the detected file when a potentially unwanted program is found and the primary action has failed.
DELETEA	Deletes the file when an unwanted program is detected.
DELETEA2	Deletes the file when a potentially unwanted program is detected and the primary action has failed.
EDIT	Displays the scan properties dialog box.
EXT	Replaces the extensions on the list of selected file types that are included in scanning with the file extensions that you add, as parameters following this argument.
LOG	Logs detection reports to a previously specified log file.
LOGFORMAT <value>	Uses the specified format for the log file. Valid values are ANSI, UTF8, or UTF16.
LOGSETTINGS	Logs the configuration settings of a scan.
LOGSUMMARY	Logs a summary of scan results.
LOGUSER	Logs identifying information about the user who executes a scan.
MHEUR	Enables Artemis detection of macro threats.
MIME	Detects potentially unwanted programs in mime (Multipurpose Internet Mail Extensions) encoded files.
NOESTIMATE	Does not calculate scan size before beginning scanning of files. Progress bar does not display.
PHEUR	Enables Artemis detection of non-macro threats.
PRIORITY	Sets the priority of the scan relative to other CPU processes. Requires one of the following options: • LOW • BELOWNORMAL — *The ePolicy Orchestrator default.* • NORMAL — *The VirusScan Console default.* NOTE: You can enter a numerical parameter of 1 to 100, where 10 equals LOW, 50 equals BELOWNORMAL, and 100 equals NORMAL.
PROMPT	Prompts the user for action when a potentially unwanted program is detected.
PROMPT2	Prompts the user for action when a potentially unwanted program is detected and the primary action has failed.
PROMPTA	Prompts the user for action when an unwanted program is detected.

Command-line value	Definition with options
PROMPTA2	Prompts the user for action when an unwanted program is detected and the primary action has failed.
RPTSIZE	Sets the size of the alert log, in Megabytes.
START	Runs the scan. Does not display the properties dialog box.
TASK	Launches the on-demand scanner task specified in the VirusScan Console. Requires additional parameter specifying the specified task ID as recorded in the registry at: hkey_local_machine_\software\McAfee\Desktop\Protection\Tasks.
UINONE	Launches the scanner without making the user interface dialog visible.

Update task command-line options

VirusScan Enterprise uses *MCUPDATE.EXE* to perform update tasks. You can use the same executable command MCUPDATE from the command line, or as part of a batch file, to run update tasks.

The *MCUPDATE* syntax does not require any specific order in its elements, except that you cannot separate a property and its value. The syntax consists of:

- **File name** — The name of the executable file: *MCUPDATE.EXE*.
- **Options** — The option is preceded by a forward slash (/) character and is not case-sensitive.

The command format is:

MCUPDATE [/<type> [/TASK <guid>]] [/option].

NOTE: In the previous format, <type> can be ROLLBACKDATS or UPDATE.

The /TASK clause is optional. If you use it however, you must also specify an update task ID (guid). The task ID you select must be for an update or a rollback DATs task. Do not select to scan ID. If you do not specify a task ID, the default update task is used. Task IDs are located at: hkey_local_machine\SOFTWARE\McAfee\DesktopProtection\Tasks\

The /option clause is not required. To perform a silent update task, use /QUIET.

NOTE: The /QUIET option is not supported for use with the rollback DATs task. This example performs a silent update task: MCUPDATE /UPDATE /QUIET.

Update task options

Command-line option	Definition
ROLLBACKDATS	Rolls the current DAT file back to the last backed up version.
UPDATE	Performs an update of the DAT file, scanning engine, product, or extra.dat.
/TASK	Launches the AutoUpdate or rollback DATs task specified in the VirusScan Console. Requires an additional parameter to specify the task ID as recorded in the registry at: hkey_local_machine\software\McAfee\DesktopProtection\Tasks
/QUIET	Performs the task silently.

Connecting to remote systems

You can connect to remote systems with VirusScan Enterprise installed to perform operations such as modifying, scheduling scanning, update tasks, or enabling and disabling the on-access scanner on a remote system.

NOTE: If you do not have administrator rights to connect to the remote system, you receive an *Insufficient user rights access denied* message.

When you start the **VirusScan Remote Console**, the name of the system you are connected to appears in the console title bar. If you have not connected to a system elsewhere on the network, the title bar does not show the name of your local system. When you open any task's properties dialog box from a remote console, the system name is displayed in the properties dialog box title bar.

You can open multiple remote consoles. When you close the **Connect to Remote Computer** dialog box, the connection to the remote system also closes.

Accessing remote systems with VirusScan Enterprise installed

To connect to remote systems that you want to administer, with VirusScan Enterprise installed, use Open Remote Console on the VirusScan Console.

Task

For option definitions, click **Help** in the interface.

1. From the **Tools** menu on the VirusScan Enterprise 8.8 Console, select **Open Remote Console**.
2. Under **Connect to computer**, type the name of the system that you want to administer, and select a system from the list, or click **Browse** to locate the system on the network.

   NOTE: If environmental variables are used while configuring the path name of the file or folder for a remote task, be sure that the environmental variable exists on the remote system. The VirusScan Enterprise 8.8 Console cannot validate environmental variables on the remote system.

3. Click **OK** to make a connection attempt to the destination system.
   When you connect to the remote system:
   - The title bar changes to display that system's name.
   - The console reads the remote system's registry and displays the tasks of the remote system.
   - You can add, delete, or reconfigure tasks for the remote system.

Submit threat samples for analysis

If you find a potential threat that is not being detected, or if the scanner detects something that you think it should not detect as a threat, with the current DAT file, you can submit a sample of the threat to McAfee Labs through the WebImmune. McAfee Labs analyzes the sample and considers it for inclusion, or exclusion in the next DAT file.

You can submit a sample to McAfee Labs in three ways, by accessing the web site WebImmune, by email, or by standard mail.

WebImmune

1. From the VirusScan Console, select **Help | Submit a Sample** to access the website. The website is located at: https://www.webimmune.net/default.asp.
2. Log on to your free account, or create one.
3. Upload files directly to the McAfee Labs automated systems for review. Items are escalated to the McAfee Labs analysts if additional research is required.

Email

Send emails directly to the McAfee Labs automated systems for review. Items are escalated to the McAfee Labs analysts if additional research is required.

The global email address is virus_research@avertlabs.com.

NOTE: Get additional regional addresses from the WebImmune website.

Standard Mail

Get the address from the WebImmune website.

NOTE: This is the least preferred method and causes the longest turnaround time for review of your sample.

Access the McAfee Labs Threat Library

To access the McAfee Labs Threat Library from the VirusScan Enterprise 8.8 Console, select **McAfee Labs Threat Library** from the **Help** menu. Your internet browser opens with a connection to http://vil.nai.com/vil/default.aspx.

Troubleshooting

Before you call McAfee Technical Support, read the information in this section. It contains processes and tools you can use to troubleshoot your VirusScan Enterprise configuration, and frequently asked questions.

Repairing the product installation

There may be times when you need to repair the installation of VirusScan Enterprise to restore the default setting, reinstall the program files, or perform both steps. You can do this from the VirusScan Console or the command-line.

Using the VirusScan Console

Using the **Repair Installation** utility, from the VirusScan Enterprise 8.8 Console, select **Help | Repair Installation**.

NOTE: This feature is not available from the ePolicy Orchestrator console.

Option	Definition
Restore all settings to installation defaults	Restores the VirusScan Enterprise default installation settings. CAUTION: Customized settings might be lost.

Option	Definition
Reinstall all program files	Reinstalls the VirusScan Enterprise program files. CAUTION: Hotfixes, Patches, and Service Packs might be overwritten.

Using SETUPVSE.exe at the command line

To repair or reinstall VirusScan Enterprise from the command line with the SETUPVSE.exe command, use these commands.

NOTE: For REINSTALLMODE command line parameter options, refer to *REINSTALLMODE Property* at http://msdn.microsoft.com/en-us/library/aa371182(VS.85).aspx.

Description	Command
Install program files only	SETUPVSE.exe REINSTALLMODE=sec /q
Install registry files only	SETUPVSE.exe REINSTALLMODE=secum /q
Install both program and registry files	SETUPVSE.exe REINSTALLMODE=amus /q

Using msiexec.exe at the command line

To repair or reinstall VirusScan Enterprise from the command line with the msiexec.exe command, use these commands.

NOTE: For msiexec.exe command line options, refer to *The Command-Line Options for the Microsoft Windows Installer Tool Msiexec.exe* at http://support.microsoft.com/kb/314881.

Description	Command
Install program files only	msiexec.exe /I VSE880.msi REINSTALL=ALL REINSTALLMODE=sa /q REBOOT=R
Install registry files only	msiexec.exe /I VSE880.msi REINSTALL=ALL REINSTALLMODE=mu /q REBOOT=R
Install both program and registry files	msiexec.exe /I VSE880.msi REINSTALL=ALL REINSTALLMODE=samu /q REBOOT=R

Viewing the on-access activity log file

The VirusScan Console on-access activity log file shows you the history of updates, threat activity, and how VirusScan Enterprise responded. This information can be useful when troubleshooting automatic update activity and policy configurations.

Use one of the following process to access the on-access activity log files:

NOTE: You must have the on-access activity log file creation enabled. To enable the on-access activity log file, refer to *Configuring general settings*.

Task

For option definitions, click **Help** on each tab.

1 From the **Task** list, right-click **On-Access Scanner**, then click **Properties** to open the dialog box.

2 From the On-Access Scanner Properties dialog box, click the **Reports** tab and click **View Log**. The OnAccessScanLog.txt file appears in a Notepad window. Following is an example of the log file output.

```
4/6/2010        11:11:52 AM             Engine version                          =       5400.1158
4/6/2010        11:11:52 AM             AntiVirus   DAT version                 =       5858.0
4/6/2010        11:11:52 AM             Number of detection signatures in EXTRA.DAT =   None
4/6/2010        11:11:52 AM             Names of detection signatures in EXTRA.DAT  =   None

4/20/2010       9:08:11 AM              Engine version                          =       5400.1158
4/20/2010       9:08:11 AM              AntiVirus   DAT version                 =       5858.0
4/20/2010       9:08:11 AM              Number of detection signatures in EXTRA.DAT =   None
4/20/2010       9:08:11 AM              Names of detection signatures in EXTRA.DAT  =   None
4/27/2010       1:35:47 PM      Deleted (Clean failed because the detection isn't cleanable)
SRVR\user       C:\WINDOWS\system32\NOTEPAD.EXE C:\temp\eicar.com       EICAR test file (Test)
```

3 The following table describes the data in the previous OnAccessScanLog.txt example:

Log entry example	Description
4/27/2010	Date
1:35:47 PM	Time
Cleaned/Deleted/No Action Taken	Action taken
File updated = version, or (Clean failed because...	Description of action
SRVR\user	Credentials
C:\WINDOWS\system32\NOTEPAD.EXE C:\temp\eicar.com	Path and name of the threat file
EICAR test file (Test)	Description of the file

Similar information is available using ePolicy Orchestrator queries. For details, refer to *Access queries and dashboards*.

Using the MER tool during troubleshooting

The Minimum Escalation Requirements (MER) tool collects McAfee VirusScan Enterprise, and other McAfee product, data from your computer. Using this data allows McAfee Technical Support to analyze and resolve your problem.

The WebMER tool can be downloaded using any of these file formats:

- EXE
- ZIP
- ProtectedZip

The information collected by the WebMER tool includes:

- Registry details
- File version details
- Files
- Event logs
- Process details

To use the WebMER tool, you must:

- View the *Obtaining Minimum Escalation Requirements using McAfee WebMER* tutorial found at: https://kc.mcafee.com/corporate/index?page=content&id=TU30146.

- Download and install the tool from: http://mer.mcafee.com.

  NOTE: An ePolicy Orchestrator deployable version is also available. This version uses the ePolicy Orchestrator console to run the MER on client computers for collecting logs and information when diagnosing McAfee product problems. Download the McAfee MER for ePolicy Orchestrator 4.x (v2.0) from: http://mer.mcafee.com/enduser/downloadepomer.aspx.

- Run the tool and send the output back to McAfee Technical Support.

Disabling VirusScan Enterprise during troubleshooting

If a system problem occurs that could be related to processes VirusScan Enterprise is running, you can systematically disable VirusScan Enterprise functions until the system problem is eliminated. Or, at least you can eliminate VirusScan Enterprise as the cause of the problem.

CAUTION: You must reconfigure or restore VirusScan Enterprise to have full malware protection again after troubleshooting.

Systematically disabling the VirusScan Enterprise functionality is separated into the following eight-step process:

1. Disabling Buffer Overflow protection
2. Disabling Access Protection
3. Disabling ScriptScan
4. Disabling On Access Scanning
5. Disabling On Access Scanning then reboot
6. Preventing MFEVTP from loading then reboot
7. Renaming mfehidk.sys then reboot
8. Removing the product then reboot

Each of these eight steps is described in the following sections. For option definitions in the VirusScan Console, click **Help** in the interface.

Disabling buffer overflow protection

Follow these steps to disable Buffer Overflow protection.

1. From the VirusScan Console Task list, right-click **Buffer Overflow Protection** and click **Properties**.
2. From the Properties dialog box, deselect **Enable buffer overflow protection** and click **OK**.
3. Is the original system problem fixed by disabling Buffer Overflow protection:
   - **Yes** — Go to the McAfee Technical Support ServicePortal at http://mysupport.mcafee.com and search for a solution or contact McAfee Technical Support.
   - **No** — The original system problem was probably not related to this feature.

Disabling access protection

Follow these steps to disable Access Protection.

1. From the VirusScan Console Task list, double-click **Access Protection** to open the Access Protection Properties dialog box.
2. Click **Access Protection** tab, deselect **Enable access protection** and click **OK**.

3 Is the original system problem fixed by disabling Access Protection:

- **Yes** — Go to the McAfee Technical Support ServicePortal at http://mysupport.mcafee.com and search for a solution or contact McAfee Technical Support.
- **No** — The original system problem was probably not related to VirusScan Enterprise.

Disabling ScriptScan

Follow these steps to disable ScriptScan.

1 From the VirusScan Console Task list, right-click **On-Access Scanner** to open the On-Access Scan Properties dialog box.

2 Click **ScriptScan** tab, deselect **Enable scanning of scripts** and click **OK**.

3 Is the original system problem fixed by disabling ScriptScan:

- **Yes** — Go to the McAfee Technical Support ServicePortal at http://mysupport.mcafee.com and search for a solution or contact McAfee Technical Support.
- **No** — The original system problem was probably not related to VirusScan Enterprise.

Disabling on-access scanning

Follow these steps to disable on access scanning.

1 Disable Access Protection. From the VirusScan Console in the Task list, right-click **Access Protection** and select **Disable**.

2 Change the McShield Services applet Start type to **Disabled** using the following:

- Click **Start | Control Panel | Administrative Tools | Services** to open the Services applet.
- In Services (Local), scroll down to **McAfee McShield** and right-click the name to open the McAfee McShield Properties dialog box.
- Click the **General** tab, from the Startup type list, click **Disabled**, and click **OK**.

3 From the VirusScan Console Task list, right-click **On-Access Scanner** and click **Disable** from the list that appears. The On-Access Scanner icon should change to include a circle with a slash to indicate the function is disabled.

4 Is the original system problem fixed by disabling On Access scanning:

- **Yes** — Go to the McAfee Technical Support ServicePortal at http://mysupport.mcafee.com and search for a solution or contact McAfee Technical Support.
- **No** — The original system problem was probably not related to this feature.

Disabling on-access scanning then reboot

Follow these steps to disable on access scanning and reboot.

NOTE: The following process assumes you have not re-enabled on access scanning after disabling it in the previous section.

1 Perform a complete shut-down and reboot of the system.

2 Is the original system problem fixed by disabling On Access scanning then rebooting:

- **Yes** — Go to the McAfee Technical Support ServicePortal at http://mysupport.mcafee.com and search for a solution or contact McAfee Technical Support.
- **No** — The original system problem was probably not related to this feature.

Preventing MFEVTP from loading then reboot

Follow these steps to prevent McAfee Validation Trust Protection Service (MFEVTP) from loading and reboot the system:

CAUTION: This section contains information about opening or modifying the registry.

- The following information is intended for System Administrators. Registry modifications are irreversible and could cause system failure if done incorrectly.
- Before proceeding, McAfee strongly recommends backing up your registry and understanding the restore process. For more information, see: http://support.microsoft.com/kb/256986 .
- Do not run a .REG file that is not confirmed to be a genuine registry import file.

1. From the command line, type regedit to display the Registry Editor user interface.
2. Navigate to the following Registry:
   [HKEY_LOCAL_MACHINE\System\ControlSet001\Services\mfevtp]
3. In the right-hand pane, right-click **Start** and click **Modify** to display the Edit DWORD Value dialog box.
4. Enter 4 in Value data and click **OK**.
5. Is the original system problem fixed by preventing MFEVTP from loading then rebooting:
   - **Yes** — Go to the McAfee Technical Support ServicePortal at http://mysupport.mcafee.com and search for a solution or contact McAfee Technical Support.
   - **No** — The original system problem was probably not related to this feature.

Renaming mfehidk.sys file then reboot

Follow these steps to rename the mfehidk.sys file and reboot the system.

1. Navigate to the mfehidk.sys file in the following folder, depending on your operating system:
   - For 32-bit operating systems — %windir%\System32\drivers
   - For 64-bit operating systems — %windir%\System64\drivers
2. Change the file name from mfehidk.sys to, for example, mfehidk.sys.saved.
3. Reboot the system to stop and restart VirusScan Enterprise without loading the mfehidk.sys file.
4. Is the original system problem fixed by renaming the mfehidk.sys file then rebooting:
   - **Yes** — Go to the McAfee Technical Support ServicePortal at http://mysupport.mcafee.com and search for a solution or contact McAfee Technical Support.
   - **No** — The original system problem was probably not related to VirusScan Enterprise.

Removing the product then reboot

Follow these steps to completely remove VirusScan Enterprise and reboot:.

1. Remove the VirusScan Enterprise program files. Refer to the *McAfee VirusScan Enterprise 8.8, Installation Guide* for detailed instructions.
2. Reboot the system to stop and restart the operating system without VirusScan Enterprise installed.
3. Is the original system problem fixed by completely removing the VirusScan Enterprise program files and rebooting:
   - **Yes** — The original system problem was probably related to VirusScan Enterprise.

- **No** — Go to the McAfee Technical Support ServicePortal at http://mysupport.mcafee.com and search for a solution, or contact McAfee Technical Support.

Suggested support and troubleshooting tools

As a VirusScan Enterprise Global Administrator there are tools you should install and configure to help you troubleshoot and evaluate your system security and performance. When you contact McAfee Technical Support, they might ask you to run some of these tools while troubleshooting your configuration. These tools can be downloaded from the internet sites listed in these tables.

McAfee tools

The support and troubleshooting tools you can download from McAfee are listed in this table.

Tool	Download site
MER Tool	WebMER
ProcessCounts	Provided by McAfee Support
SuperDAT Manager	Provided by McAfee Support
McAfee Profiler	Provided by McAfee Support

Non-McAfee tools

The support and troubleshooting tools, executable, and download site are listed in this table.

Tool	Executable	Download site
Driver Verifier	Verifier	Microsoft.com
Performance Monitor	PerfMon	Microsoft.com
Pool Monitor	PoolMon	Microsoft.com
Process Monitor	ProcMon	Microsoft.com
Process Explorer	ProcExp	Microsoft.com
Process Dump	ProcDump	Microsoft.com
Windows Object Viewer	WinObj	Microsoft.com
TCP Viewer	TCPView	Mircosoft.com
Debug Output Viewer	DebugView	Microsoft.com
Windows Debugger	WinDbg	Microsoft.com
Kernel Rate Viewer	KrView	Microsoft.com
Windows Performance Analysis Tools	Xperf	Microsoft.com
VM Converter	*Varies*	Vmware.com
WireShark	wireshark	Wireshark.org

Frequently asked questions

This section contains troubleshooting information in the form of frequently asked questions.

Installation

- **Question:** I just installed the software using the silent installation method, and there is no VirusScan Enterprise icon in the Windows system tray.

  Answer: The icon shield does not appear in the system tray until you restart your system. However, even though there is no icon, VirusScan Enterprise is running and your system is protected. Verify this by checking for the following registry key: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\Run\ ShStatEXE="C:\Program Files\McAfee\VirusScan Enterprise\SHSTAT.EXE"/STANDALONE.

- **Question:** Why can some users on my network configure their own settings and others cannot?

  Answer: The administrator might have configured the user interface so that tasks are password-protected. If so, users cannot change settings. In addition, different Windows operating systems have different user privileges. Refer to your Microsoft Windows documentation for more information about user privileges.

Blocked programs

- **Question:** I installed VirusScan Enterprise and now one of my programs does not work.

  Answer: The program might be blocked by an access protection rule.

  1. Review the access protection log file to determine if the program was blocked by a rule.
  2. If you find the program listed in the log, you can either enter it as an exclusion to the rule or disable the rule. See *Protecting your system access points* for more information.

Cookie detections

- **Question:** When reviewing the cookie detections in the on-demand scan activity log, I noticed that the file name detection is always *00000000.ie* for every detection. Why does VirusScan Enterprise assign the same file name for every on-demand scan cookie detection when other programs assign an individual or incremental file name to each cookie detection?

  Answer: VirusScan Enterprise assigns the same file name to each cookie detection because of the way the on-demand scanner detects and takes action on cookies. This behavior applies only to cookies detected by on-demand scans. A cookie file might contain many cookies. The scan engine treats a cookie file as an archive and assigns a value as an offset from the beginning of the file (starting with zero). Because the scanner uses the scan engine to detect and take action on each detected cookie before it proceeds with the scan, the value starts at zero for each detection. The result is that every detection is assigned a 00000000.ie file name. Other products detect all cookies, assign each one an individual or incremental file name, then take action on each detection.

General

- **Question:** On my standalone VirusScan Enterprise system, the system icon in my system tray appears to be disabled.

  Answer: If there is a red circle and line covering the VirusScan Enterprise icon, that indicates the on-access scanner is disabled. Here are the most common causes and solutions. If none of these solves your problem, contact Technical Support:

  1. Make sure that the on-access scanner is enabled. Right-click the VirusScan Enterprise icon in the system tray. If the on-access scanner is disabled, click **Enable On-Access Scan**.
  2. Make sure that the McShield service is running.

- Start the service manually from the Services Control Panel.
- Select **Start | Run**, then type Net Start McShield.
- Set the service to start automatically from the Services Control Panel.

- **Question:** I get an error saying that I cannot download *CATALOG.Z*.

  Answer: This error can be caused by many things. Here are some suggestions to help determine the source of the problem:

  - If you are using the McAfee default download site for updates, determine if you can download the *CATALOG.Z* file from a web browser. Try downloading the file from this website: http://update.nai.com/Products/CommonUpdater/catalog.z.
  - If you can't download the file, but you can see it (in other words, your browser does not allow you to download it), you have a proxy issue and need to talk to your network administrator.
  - If you can download the file, VirusScan Enterprise should be able to download it as well. Contact technical support for assistance in troubleshooting your installation of VirusScan Enterprise.

- **Question:** What is the location of the HTTP download site?

  Answer:

  - The McAfee download site location is: http://www.mcafeesecurity.com/us/downloads/updates/default.asp.
  - The *CATALOG.Z* file, which contains the latest updates, can be downloaded from this website: http://update.nai.com/Products/CommonUpdater/catalog.z.

- **Question:** What is the location of the FTP download site?

  Answer:

  - The FTP download site location is: ftp://ftp.mcafee.com/pub/antivirus/datfiles/4.x.
  - The *CATALOG.Z* file, which contains the latest updates, can be downloaded from this site: ftp://ftp.mcafee.com/CommonUpdater/catalog.z.

- **Question:** If I do detect a potentially unwanted program and I have chosen **prompt user for action**, what action should I choose (**Clean** or **Delete**)?

  Answer: Our general recommendation is to choose **Clean** if you are not sure what to do with a detected file. The on-access and on-demand scanners automatically back up items to the quarantine directory before they are cleaned or deleted.

Access Protection tab

Configure access protection rules and prevent McAfee processes from being stopped.

Option definitions

Option	Definition
Settings for	Select **Workstation** or **Server** from the drop-down list. NOTE: This option is only available via ePolicy Orchestrator.
Access protection settings	• **Enable access protection** — Enables the access protection feature. • **Prevent McAfee services from being stopped**— Prevent users without debug privileges from terminating McAfee processes. Users with debug program privileges can still stop McAfee processes even though you select this option. Administrators have debug program privileges by default for Windows XP and Windows 2003 operating systems. Remove these privileges from the user's permissions so that they cannot stop McAfee processes. CAUTION: Failure to enable access protection and prevent McAfee services from being stopped leaves your system unprotected from numerous malware attacks.
Access protection rules	**Categories** — Select a category to display the rules for that category. Rules are organized into these categories: • **Anti-virus Standard Protection** • **Anti-virus Maximum Protection** • **Anti-virus Outbreak Control** • **Common Standard Protection** CAUTION: Failure to configure Common Standard Protection, and enable **Block** and **Report**, for the following rules leaves your system unprotected from numerous malware attacks: • Prevent modification of McAfee files and settings. • Prevent modification of McAfee Common Management Agent files and settings. • Prevent modification of McAfee Scan Engine files and settings. • Prevent termination of McAfee processes. • **Common Maximum Protection** • **Virtual Machine Protection** • **User-defined Rules** • **Anti-spyware Standard Protection** • **Anti-spyware Maximum Protection** See *How access protection rules are defined* for more information. **Block/Report/Rules** — Configure the rules:

Option	Definition
	• **Block** — Blocks the process that is specified in the **Rule Details**. Select **Block** to enable the rule or deselect it to disable the rule. NOTE: To block access attempts without logging, select **Block** but do not select **Report**. • **Report** — Enables reporting of attempts to violate access protection. When a detection occurs, information is recorded in the activity log. NOTE: To receive a warning without blocking access attempts, select **Report**, but do not select **Block**. This is useful when the full impact of a rule is not known. Monitor the logs and reports for a short while to determine whether to block access. • **Rules** — Use the rules to protect your computer from unwanted changes. Rules are organized by category. First select the category, then select the rule. See *Configuring predefined rules* and *Configuring user-defined rules* for more information. **New** — Create a new user-defined rule. See *Configuring user-defined rules* for more information. **Edit** — Change an existing rule. **Delete** — Remove an existing user-defined rule. NOTE: You can only delete user-defined rules. Other rules can be edited or disabled, but not deleted. To disable a rule, deselect both the **Block** and **Report** options.

Additional Alerting Options tab

Configure filter and local alerting options.

Option definitions

Option	Definition
Settings for	Select **Workstation** or **Server** from the drop-down list. NOTE: This option is only available via ePolicy Orchestrator.
Severity Filter	Choose from these filter options: • **Don't filter alerts** — Send all alerts. • **Suppress informational alerts** — Don't send informational alerts with a severity of less than one. • **Suppress informational and warning alerts** — Don't send informational and warning alerts with a severity of less than two. • **Suppress informational, warning, and low** — Don't send informational, warning, and low severity alerts with a severity of less than three. • **Suppress all except severe alerts** — Don't send any alerts except those with a severity of more than four. • **Suppress all alerts** — Do not send any alerts.
Local Alerting	• **Log to local application event log** — Log information in the local application event log. • **Send SNMP trap using SNMP service** — If you are using SNMP, you can send SNMP trap alerts. NOTE: Local alerting options do not require Alert Manager.

Alerts tab

Select the components that you want to generate alerts and configure Alert Manager if it is installed.

See the *Alert Manager 4.7.1 Product Guide* for more information.

Option definitions

Option	Definition
Settings for	Select **Workstation** or **Server** from the drop-down list. NOTE: This option is only available via ePolicy Orchestrator.
Components that generate alerts	• **On-Access Scan** — Generate alerts when the on-access scanner detects threats. • **On-Demand Scan and scheduled scans** — Generate alerts when the on-demand scan tasks detect threats. • **Email Scan** — Generate alerts when the email scanner detects threats. • **AutoUpdate** — Generate alerts when update tasks detect threats. • **Access Protection** — Generate alerts when access protection detects threats.
Alert Manager options	• **Disable alerting** — Do not generate alerts when detections occur. • **Enable Centralized alerting** — Use centralized alerting to notify you when detections occur. • **Enable Alert Manager alerting** — Use Alert Manager alerting to notify you when detections occur. Select this option and type the path to the location of the Alert Manager server that receives alerts. • **Disable Active Directory Lookup —** Do not use Active Directory Lookup.

Reports tab

Enable logging to track activity on your network and record which settings you used to detect and respond to any potential threat that the scanner found.

Option definitions

Option	Definition
Settings for	Select **Workstation** or **Server** from the drop-down list. NOTE: This option is only available via ePolicy Orchestrator.
Log to file	Enable activity logging.
Log file location	Accept the default location for the log file or specify a new location. The default log name is *AccessProtectionLog.txt*. The default location is: <drive>:\Documents and Settings\All Users\Application Data\McAfee\DesktopProtection\ The default location may vary depending on which operating system you are using.
Log file size	Limit the size of the log file. Accept the default size (1 MB) or set a size from 1 MB to 999 MB. If the data in the log file exceeds the file size you set, the oldest 20 percent of the entries are deleted and new data is appended to the file.
Log file format	Select the format of the log file. *Default = Unicode (UTF8).* • **Unicode (UTF8)** — Recommended if you are storing eastern text (every character is one or two bytes), or sharing information within a multi-national organization. • **Unicode (UTF16)** — Recommended if you are storing eastern text (every character is one or two bytes), or sharing information within a multi-national organization. • **ANSI** — Recommended if you are storing western text (every character is one byte).

Blocking tab

Block connections from remote computers that have files with potential threats or unwanted programs in a shared folder.

Option definitions

Option	Definition
Settings for	Select **Workstation** or **Server** from the drop-down list. NOTE: This option is only available via ePolicy Orchestrator.
Send a message	**Send the specified message to the network user when a threat is detected** — Notify the network user on the remote computer when a threat is detected.
Message text	Type a custom message in the text box. The Windows Messenger service must be running on the remote computer to receive this message.
Block the connection	• **Block the connection when a threatened file is detected in a shared folder** — Block the connection to any network user on a remote computer who attempts to read from, or write to, a threatened file in the shared folder. • **Unblock connections after** — Unblocks the connection after the specified number of minutes. Enter a number between 1 and 9999. *Default = 10 minutes.* • **Block the connection when a file with a potentially unwanted program is detected in a shared folder** — Blocks the connection to any user on a remote computer who attempts to write an unwanted program to the computer. The **On-Access Scan Statistics** dialog box displays a list of blocked computers.

Reports tab

Enable logging to track detections on the local system of any code execution from heap or stack overruns for certain processes.

Option definitions

Option	Definition
Alert on cookies	**Notify the user when a cookie detection occurs.** *Default = selected.*
Log to file	**Enable activity logging and accept the default location for the log file or specify a new location.**
Log file location	Accept the default location for the log file or specify a new location. The default log name is *BufferOverflowProtectionLog.txt*. The default location is: <drive>:\Documents and Settings\All Users\Application Data\McAfee\DesktopProtection\ The default location may vary depending on which operating system you are using.
Log file size	**Limit the size of the log file.** Accept the default size (1 MB) or set a size from 1 MB to 999 MB. If the data in the log file exceeds the file size you set, the oldest 20 percent of the entries are deleted and new data is appended to the file.
Log file format	Select the format of the log file. *Default = Unicode (UTF8).* • **Unicode (UTF8)** — Recommended if you are storing eastern text (every character is one or two bytes), or sharing information within a multi-national organization. • **Unicode (UTF16)** — Recommended if you are storing eastern text (every character is one or two bytes), or sharing information within a multi-national organization. • **ANSI** — Recommended if you are storing western text (every character is one byte), we recommend using ANSI format.

Buffer Overflow Protection tab

Prevent buffer overflow exploits from executing arbitrary code on your computer.

Option definitions

Option	Definition
Settings for	Select **Workstation** or **Server** from the drop-down list. NOTE: This option is only available via ePolicy Orchestrator.
Buffer overflow settings	**Enable buffer overflow protection** — Enable the buffer overflow protection feature, then select the protection level. • **Warning mode** — Sends a warning when a buffer overflow is detected. No other action is taken. This mode is useful when the full impact of a buffer overflow is not known. Use the feature in **Warning Mode** for a short while and review the log file during that time to help determine whether to change to **Protection Mode**. • **Protection mode** — Blocks buffer overflows as they are detected and terminates the detected thread. This can also result in termination of the application. CAUTION: Failure to enable **Buffer Overflow Protection** and **Protection mode** leaves your system unprotected from numerous malware attacks.
Client system warning	**Show the messages dialog box when a buffer overflow is detected** — Displays the **On-Access Scan Messages** dialog box when a detection occurs.
Buffer overflow exclusions	Specify the exclusion information: NOTE: The exclusion names are case-sensitive. • **Process** — Specify the process name that owns the writable memory that is making the call. Type the process name alone or include its path. If you type the process name only, such as for OUTLOOK.EXE, that process is excluded whenever it is executed, no matter where it is located. If you type the process name including the path, such as C:\Program files\OUTLOOK.EXE, that process is excluded only when it is executed from the specified path. Wildcards are not allowed. • **Module (optional)** — If applicable, type the name of the module that owns the writable memory. This is information is not required. • **API** — Specify the API being called. NOTE: The API is required only if the module is specified.

Display Options tab

Configure which system tray options users can access and the preferred language.

Option definitions

Option	Definition
Settings for	Select **Workstation** or **Server** from the drop-down list. NOTE: This option is only available via ePolicy Orchestrator.
System tray icon	• **Show the system tray icon with all menu options —** Allow users to see all options on the system tray menu. • **Show the system tray icon with minimal menu options —** Hide all options on the system tray menu except **About VirusScan Enterprise** and **On-Access Scan Statistics**. • **Do not show the system tray icon —** Hide the system tray icon from all users.
Console options	NOTE: This option is only available via ePolicy Orchestrator. • **Allow this system to make remote console connections to other systems —** Connect to remote computers. You must have administrator rights and the Remote Registry Service must be running. • **Display managed tasks in the client console —** Display ePolicy Orchestrator tasks in the Console on the client computer. • **Disable default AutoUpdate task schedule —** Disable the schedule for the default update task. The schedule is disabled when the policy is enforced. The Task Manager service must be running to disable the tasks's schedule. • **Enable splash screen —** Display the VirusScan Enterprise 8.8 splash screen when the Console or SHSTAT.EXE is launched. NOTE: This option is only available via ePolicy Orchestrator.
Console language settings	Specify which language to use for the console text: • The language can be automatically selected or you can select a specific language. NOTE: When you change the preferred language from the VirusScan Enterprise 8.8 Console, you are prompted to restart the system. If you click **Yes**, the language change is applied. When you change the preferred language from the ePolicy Orchestrator Console, the language change is applied to the user console on the first policy enforcement. For ePolicy Orchestrator managed systems, changes made by the user from the client system affect the console interface, but the log file records activity in the language specified in the ePolicy Orchestrator configuration. The console language change is applied after a console restart.

Actions tab

Configure which actions to take when a threat or potentially unwanted program is detected.

Option definitions

Option	Definition
Settings for	Select **Workstation** or **Server** from the drop-down list. NOTE: This option is only available via ePolicy Orchestrator.
When a threat is found	**Perform this action first** — Select the first action that you want the scanner to take when a threat is detected. *Default = Clean attachments*. • **Clean attachments** — The scanner tries to remove the threat from the attachment. • **Prompt for action** — Prompt the user for action when a threat is detected. Select this option, then specify which actions users can take under **Allowed action in Prompt dialog box**. No secondary action is allowed for this option. • **Continue scanning** — Continue scanning when an attachment with a threat is detected. No secondary action is allowed for this option. • **Move attachments to a folder** — The scanner moves attachments with potential threats to the designated folder. • **Delete attachments** — The scanner deletes attachments with potential threats as soon as it detects them. For Microsoft Outlook, the email is deleted. For Lotus Notes, the attachment is deleted. • **Delete mail (for Outlook Scan only)** — The scanner deletes mail with potential threats. If you select this option as the primary action, no secondary action is allowed. **If the first action fails, then perform this action** — Select the next action you want the scanner to take if the first action fails. *Default = Move attachments to a folder.* • **Prompt for action** — Prompt the user for action when a threat is detected. Select this option, then specify which actions users can take under **Allowed action in Prompt dialog box**. • **Continue scanning** — Continue scanning when an attachment with a threat is detected. • **Move attachments to a folder** — The scanner moves attachments with potential threats to the designated folder. • **Delete attachments** — The scanner deletes attachments with potential threats as soon as it detects them. For Microsoft Outlook, the email is deleted. For Lotus Notes, the attachment is deleted. • **Delete mail (for Outlook Scan only)** — The scanner deletes mail with potential threats.
When an unwanted program is found	**Perform this action first** — Select the first action that you want the scanner to take when a potentially unwanted program is detected. *Default = Clean attachments*. • **Clean attachments** — The scanner tries to remove the threat from the attachment. • **Prompt for action** — Prompt the user for action when a threat is detected. Select this option, then specify which actions users can take under **Allowed action in Prompt dialog box**.

Option	Definition
	No secondary action is allowed for this option. • **Continue scanning** — Continue scanning when an attachment with a threat is detected. No secondary action is allowed for this option. • **Move attachments to a folder** — The scanner moves attachments with potential threats to the designated folder. • **Delete attachments** — The scanner deletes attachments with potential threats as soon as it detects them. For Microsoft Outlook, the email is deleted. For Lotus Notes, the attachment is deleted. **If the first action fails, then perform this action** — Select the next action you want the scanner to take if the first action fails. *Default = Move attachments to a folder.* • **Prompt for action** — Prompt the user for action when a threat is detected. Select this option, then specify which actions users can take under **Allowed action in Prompt dialog box**. No secondary action is allowed for this option. • **Continue scanning** — Continue scanning when an attachment with a threat is detected. No secondary action is allowed for this option. • **Move attachments to a folder** — The scanner moves attachments with potential threats to the designated folder. • **Delete attachments** — The scanner deletes attachments with potential threats as soon as it detects them. For Microsoft Outlook, the email is deleted. For Lotus Notes, the attachment is deleted.
Move to folder	Specify the location of the quarantine folder. The quarantine folder must be located on a hard drive and this location should be a local drive. It should not be located on a floppy drive or the CD drive's default location as the quarantine folder varies depending on whether you are using Microsoft Outlook or Lotus Notes. • For Microsoft Outlook the quarantine folder is located in the Microsoft Outlook mailbox. • For Lotus Notes, the quarantine folder is located in the file system.
Allowed actions in Prompt dialog box	Select the actions that are allowed when the user is prompted for action. NOTE: A default **Deny Access** action occurs before any of these actions are taken. • **Clean attachment** • **Delete attachment** • **Move attachment** • **Delete mail (for Microsoft Outlook only)** When the user is prompted for action, they receive the message that you specify on the **Alerts** tab.

Alerts tab

Configure the alert settings for the on-delivery email scanner.

Option definitions

Option	Definition
Settings for	Select **Workstation** or **Server** from the drop-down list. NOTE: This option is only available via ePolicy Orchestrator.
Email alert for user	**Send alert mail to user —** Notify another user when a threatened email message is detected.
Prompt for action message	Specify the message that displays to the user when prompting for action. The **Prompt for action** option must be selected on the **Actions** tab. Accept the default message or type a new message. *Default message = McAfee VirusScan Enterprise Email Scanner: Alert!*

Reports tab

Enable logging to track activity on your network and record which settings you used to detect and respond to any potential threat that the scanner found.

Option definitions

Option	Definition
Settings for	Select **Workstation** or **Server** from the drop-down list. NOTE: This option is only available via ePolicy Orchestrator.
Log to file	Enable activity logging.
Log file location	Accept the default location for the log file or specify a new location. The default log name for the on-demand email log is *EmailOnDemandLog.txt*. The default location is: <drive>:\Documents and Settings\All Users\Application Data\McAfee\DesktopProtection\ The default location may vary depending on which operating system you are using.
Log file size	Limit the size of the log file. Accept the default size (1 MB) or set a size from 1 MB to 999 MB. If the data in the log file exceeds the file size you set, the oldest 20 percent of the entries are deleted and new data is appended to the file.
Log file format	Select the format of the log file. *Default = Unicode (UTF8).* • **Unicode (UTF8)** — Recommended if you are storing eastern text (every character is one or two bytes), or sharing information within a multi-national organization. • **Unicode (UTF16)** — Recommended if you are storing eastern text (every character is one or two bytes), or sharing information within a multi-national organization. • **ANSI** — Recommended if you are storing western text (every character is one byte), we recommend using ANSI format.
What to log in addition to scanning activity	• **Session settings** — Record the properties for each scanning session in the log file. • **Session summary** — Record a summary of the scanner's actions during each scanning session in the log file. Summary information includes the number of files scanned, the number and type of detections, the number of files cleaned or deleted, and other information. • **Failure to scan encrypted files** — Record the name of encrypted files that the scanner failed to scan.

Scan Items tab

Configure detection options for the email scanner.

Option definitions

Option	Definition
Settings for	Select **Workstation** or **Server** from the drop-down list. NOTE: This option is only available via ePolicy Orchestrator.
Scanning of email	Enable scanning of on-delivery email. NOTE: This option is only available via ePolicy Orchestrator.
Attachments to scan	• **All file types** — Scan all types of files, regardless of extension. • **Default + additional file types** — Scan the default list of extensions plus any additions you specify. The default list is defined by the current DAT file. Select **Default + additional file types**, then enter file extensions separated by spaces in the text box. **Also scan for macros in all attachments**— If you selected **Default + additional file types**, you can also search for known macro threats in all files. • **Specified file types** — Create a list of user-specified extensions to be scanned. You can also remove any extensions you added previously. Select **Specified file types**, then enter file extensions separated by spaces in the text box.
Artemis (Heuristic network check for suspicious files)	• **Find unknown program threats and trojans** — Use Artemis scanning to detect executable files that have code resembling malware. • **Find unknown macro threats** — Use Artemis scanning to detect unknown macro viruses. • **Find attachments with multiple extensions** — Treat attachments with multiple extensions as a threat. When you select this option, an **Email Scan Warning** dialog box appears. Click **OK** to confirm your selection. CAUTION: Failure to enable **Artemis** leaves your system unprotected from numerous malware attacks.
Compressed files	• **Scan inside archives** — Examine archive (compressed) files and their contents. Although it provides better protection, scanning compressed files can increase the time required to perform a scan. • **Decode MIME encoded files** — Detect, decode, and scan Multipurpose Internet Mail Extensions (MIME) encoded files.
Unwanted programs detection	**Detect unwanted programs** — Enables the on-delivery email scanner to detect potentially unwanted programs. The email scanner uses the information you configured in the **Unwanted Programs Policy** to detect potentially unwanted programs. See *Restricting potentially unwanted programs* for more information.

Option	Definition
Email message body (for Microsoft Outlook only)	**Scan email message body** — Scan the body of Microsoft Outlook email messages.
Heuristic network check for suspicious files	Configure the sensitivity level you wish to use when determining if a detected sample is malware. For all levels other than **Disabled**, fingerprints of samples, or *hashes*, are submitted to McAfee Labs to determine if they are malware. The benefit to you is that detection may be made available as soon as McAfee Labs publishes the update, and you would not have to wait for the next DAT release. The higher the sensitivity level you choose, the higher the number of malware detections. However, by allowing more detections, you may also get more false positive results. Choose from these sensitivity levels: • **Disabled** — No fingerprints or any data are submitted to McAfee Labs to determine if they malware. • **Very Low** —The detections and risk of false positives are the same as with regular DATs. A detection is made available to VirusScan Enterprise when McAfee Labs publishes it instead of waiting for the next DAT update. • **Low** — This level is defined as between **Very Low** and **Medium**. • **Medium** — Use this level when the regular risk of exposure to malware is greater than the risk of a false positive. McAfee Labs proprietary, heuristic checks results in detections that are likely to be malware. However, there is some risk that a detection on a file that isn't common may result in a false positive. McAfee Labs checks that detections with this setting will not create a false positive on popular applications and operating system files. • **High** — This level is defined as between **Medium** and **Very High**. • **Very High** —We recommend using this level only for email and for scanning volumes and directories that support neither executing programs nor operating systems. Detections found with this level are presumed to be malicious, but they haven't been fully tested to confirm that they are not false positives.

Scan Items tab

Configure detection options for the on-demand email scanner.

Option definitions

Option	Definition
Messages to scan	• **All highlighted items** — Scan selected email messages and folders. • **All messages in the Inbox folder** — Scan all messages currently in the Inbox folder and its subfolders. • **Scan unread messages only** — Scan all unread messages currently in the Inbox folder and its subfolders.
Attachments to scan	• **All file types** — Scan all types of files, regardless of extension. • **Default + additional file types** — Scan the default list of extensions plus any additions you specify. The default list is defined by the current DAT file. Select **Default + additional file types**, then enter file extensions separated by spaces in the text box. **Also scan for macros in all attachments**— If you selected **Default + additional file types**, you can also search for known macro threats in all files. • **Specified file types** — Create a list of user-specified extensions to be scanned. You can also remove any extensions you added previously. Select **Specified file types**, then enter file extensions separated by spaces in the text box.
Artemis (Heuristic network check for suspicious files)	• **Find unknown program threats and trojans** — Use Artemis scanning to detect executable files that have code resembling malware. • **Find unknown macro threats** — Use Artemis scanning to detect unknown macro viruses. • **Find attachments with multiple extensions** — Treat attachments with multiple extensions as a threat. When you select this option, an **Email Scan Warning** dialog box appears. Click **OK** to confirm your selection. CAUTION: Failure to enable **Artemis** leaves your system unprotected from numerous malware attacks.
Compressed files	• **Scan inside archives** — Examine archive (compressed) files and their contents. Although it provides better protection, scanning compressed files can increase the time required to perform a scan. • **Decode MIME encoded files** — Detect, decode, and scan Multipurpose Internet Mail Extensions (MIME) encoded files.
Unwanted programs detection	**Detect unwanted programs** — Enables the on-delivery email scanner to detect potentially unwanted programs. The email scanner uses the information you configured in the **Unwanted Programs Policy** to detect potentially unwanted programs. See *Restricting potentially unwanted programs* for more information.
Email message body (for Microsoft Outlook only)	**Scan email message body** — Scan the body of Microsoft Outlook email messages.

General tab

Configure general on-access scanning options.

Option definitions

Option	Definition
Settings for	Select **Workstation** or **Server** from the drop-down list. NOTE: This option is only available via ePolicy Orchestrator.
Scan	Specify general scan items: • **Boot sectors** — Scan boot sectors. *Default = Enabled.* • **Floppy during shutdown** — Scan floppy drives when the computer is shut down. *Default = Enabled.* • **Processes on enable** — The McAfee On-access McShield service scans all processes which are already running. *Default = Disabled.* NOTE: Enabling this feature improves security, but impacts boot-time performance. • **Trusted installers** — Specify if MSI files, installed by msiexec.exe and signed by McAfee or Microsoft, or if Windows Trusted Installer service files, are scanned on-access: • Disabled (default), do not scan files installed by MSI or Windows Trusted Installer service. NOTE: Disabled improves the performance of large Microsoft application installers. • Enabled, scan files installed by MSI or Windows Trusted Installer service.
Enable on-access scanning	Specify when to enable scanning: • **Enable on-access scanning at system startup** — Enable the on-access scanner each time you start your computer. • **Enable on-access scanning when the policy is enforced** — Enable the on-access scanner each time the policy is enforced. NOTE: This option is only available via ePolicy Orchestrator.
Maximum scan time	Specify the maximum scanning time: • **Enforce a maximum scanning time for all files** — Define a maximum scanning time and enforce it for all files. • **Maximum scan time** — Specify the maximum scan time for all files in seconds. *Default = 45 seconds.* NOTE: If a scan exceeds the time limit, the scan stops cleanly and logs a message. If the scan cannot be stopped cleanly, it terminates and starts again on the next scan.
Cookies	**Scan cookie files** — Enable scanning of cookie files.

Option	Definition
Artemis (Heuristic network check for suspicious files)	Specify one of the six sensitivity levels for Artemis between disabled and very high. *Default = very low*.

Messages tab

Configure message options for local users and users without administrative rights.

Option definitions

Option	Definition
Settings for	Select **Workstation** or **Server** from the drop-down list. NOTE: This option is only available via ePolicy Orchestrator.
User messages	Specify what messages local users receive. • **Show the messages dialog box when a threat is detected and display the specified text in the message** — Display the **On-Access Scan Messages** dialog box to local users when a detection occurs. • **Alert when a cookie detection occurs** — Send alerts when cookies are detected. This includes generating ePolicy Orchestrator alerts, sending messages to the On-Access Scan Messages dialog box, recording detections in the activity log if you enabled activity logging on the **Reports** tab, and counting detections in the scan statistics. If you deselect this option, ePolicy Orchestrator does not generate alerts, but detections will still be recorded in the activity log if you enabled activity logging on the **Reports** tab, and counted in the scan statistics.
Message text	Accept the default message or type a custom message. *Default = VirusScan Enterprise 8.8 Alert!*
Actions available to users	• **Remove messages from the list** — Allow users without administrator rights to delete messages from the list. • **Clean files** — Allow users without administrator rights to clean files referenced by the messages in the list. • **Delete files** — Allow users without administrator rights to delete files referenced by the messages in the list.

Notes Scanner Settings tab

Configure the Lotus Notes settings for the on-delivery email scanner.

Lotus Notes password configuration

When accessing a local database on Windows 2000 Server, Windows 2003 Server, or Windows XP, you are prompted for a password. When you type the password, the text search dialog is initiated and the password is inserted into the text search dialog instead of being inserted into the password dialog. The password dialog box is not completely modal. Selecting the dialog box again allows you to input the password.

McAfee recommends you prevent multiple prompts for passwords as follows:

1. From Lotus Notes, click **File | Preferences | Security | User Security | Dialog**.
2. Click **Don't prompt for a password from other Notes-based programs (reduces security)**.

   CAUTION: This configuration potentially reduces your system security.

Option definitions

Option	Definition
Settings for	Select **Workstation** or **Server** from the drop-down list. NOTE: This option is only available via ePolicy Orchestrator.
Server scanning settings	• **Scan all server databases** — Scan all server databases for potential threats. • **Scan server mailboxes** — Scan all server mailboxes for potential threats. • **Mailbox root folder** — Specify the location of the root folder. Accept the default location for the mailbox root folder or specify a new location. This option is available only for on-delivery email scanning. *Default = !!mail\.*
Advanced options	**Notes applications to exclude** — Specify which Lotus Notes applications to exclude from scanning. *Default = MNOTES.*

Actions tab

Configure which actions to take when a threat or potentially unwanted program is detected. If you are configuring different scanning policies for default, low-risk, and high-risk processes, the options on this tab must be configured for each process type.

Option definitions

Option	Definition
Settings for	Select **Workstation** or **Server** from the drop-down list. NOTE: This option is only available via ePolicy Orchestrator.
When a threat is found	**Perform this action first** — Select the first action that you want the scanner to take when a threat is detected. *Default = Clean files automatically*. • **Clean files automatically** — The scanner tries to remove the threat from the detected file. • **Deny access to files** — Deny all users access to any files with potential threats that the scanner finds. • **Delete files automatically** — The scanner deletes files with potential threats as soon as it detects them. **If the first action fails, then perform this action** — Select the next action you want the scanner to take if the first action fails. *Default = Delete files automatically*. • **Deny access to files** — Deny all users access to any files with potential threats that the scanner finds. • **Delete files automatically** — The scanner deletes files with potential threats as soon as it detects them.
When an unwanted program is found	**Perform this action first** — Select the first action that you want the scanner to take when a potentially unwanted program is detected. *Default = Clean files automatically*. • **Allow access to files** — Give users access to detected files and programs. NOTE: Use this action to monitor what is being detected before you decide which actions to take. Review the activity log to see which programs are being detected. No secondary action is allowed for this option. • **Clean files automatically** — Remove the threat from detected files and programs automatically. • **Deny access to files** — Prevent users from accessing detected files and programs. • **Delete files automatically** — Remove detected files and programs automatically. **If the first action fails, then perform this action** — Select the next action you want the scanner to take if the first action fails. *Default = Delete files automatically*. • **Allow access to files** — Give users access to detected files and programs.

Option	Definition
	• **Deny access to files** — Prevent users from accessing detected files and programs. • **Delete files automatically** — Remove detected files and programs automatically.

Exclusions tab

Specify what items to exclude from scanning. If you are configuring different scanning policies for default, low-risk, and high-risk processes, the options on this tab must be configured for each process type.

Option definitions

Option	Definition
Settings for	Select **Workstation** or **Server** from the drop-down list. NOTE: This option is only available via ePolicy Orchestrator.
What to exclude	Select the type of exclusion, then specify the details for the exclusion: • **Exclude by file name/location** — Type the file name and location in the text box. Select **Also exclude subfolders** if required. NOTE: You must add a backslash (\) at the end of the string to apply to a folder. Otherwise, it is considered a file exclusion and the **Also exclude subfolders** checkbox is disabled by default. • **Exclude by file type** — Type the file type in the text box. • **Exclude by file age —** Select the access type, then specify the minimum age in days. See *Adding and Excluding scan items* for more information.
When to exclude	Select when to exclude the selected item: • **On read** • **On write**
How to handle client exclusions	**Overwrite client exclusions** — Only exclude items specified in this policy. If this option is not selected, the client computer uses exclusions that were specified locally and the exclusions specified in this policy. NOTE: This option is only available via ePolicy Orchestrator.

Reports tab

Enable logging to track activity on your network and record which settings you used to detect and respond to any potential threat that the scanner found.

Option definitions

Option	Definition
Settings for	Select **Workstation** or **Server** from the drop-down list. NOTE: This option is only available via ePolicy Orchestrator.
Log to file	Enable activity logging.
Log file location	Accept the default location for the log file or specify a new location. The default log name is *OnAccessScanLog.txt*. The default location is: <drive>:\Documents and Settings\All Users\Application Data\McAfee\DesktopProtection\. The default location may vary depending on which operating system you are using.
Log file size	Limit the size of the log file. Accept the default size (1 MB) or set a size from 1 MB to 999 MB. If the data in the log file exceeds the file size you set, the oldest 20 percent of the entries are deleted and new data is appended to the file.
Log file format	Select the format of the log file. *Default = Unicode (UTF8).* • **Unicode (UTF8)** — Recommended if you are storing eastern text (every character is one or two bytes), or sharing information within a multi-national organization. • **Unicode (UTF16)** — Recommended if you are storing eastern text (every character is one or two bytes), or sharing information within a multi-national organization. • **ANSI** — Recommended if you are storing western text (every character is one byte), we recommend using ANSI format.
What to log in addition to scanning activity	• **Session settings** — Record the properties for each scanning session in the log file. • **Session summary** — Record a summary of the scanner's actions during each scanning session in the log file. Summary information includes the number of files scanned, the number and type of detections, the number of files cleaned or deleted, and other information. • **Failure to scan encrypted files** — Record the name of encrypted files that the scanner failed to scan.

Scan Items tab

Configure detection options. If you are configuring different scanning policies for default, low-risk, and high-risk processes, the options on this tab must be configured for each process type.

Option definitions

Option	Definition
Settings for	Select **Workstation** or **Server** from the drop-down list. NOTE: This option is only available via ePolicy Orchestrator.
Scan files	• **When writing to disk** — Scan all files as they are written to or modified on the computer or other data storage device. CAUTION: Failure to enable **When writing to disk** leaves your system unprotected from numerous malware attacks. If you are copying or moving files from one computer to another, it is important that all computers be configured identically so that a file with a potential threat can't be copied from or written to a computer. • **When reading from disk** — Scan all files as they are read from the computer or other data storage device. CAUTION: Failure to enable **When reading from disk** leaves your system unprotected from numerous malware attacks. • **On network drives** — Scan resources on mapped network drives. Scanning network resources might affect performance. • **Opened for backup** — Examine files that are open for backup operations.
File types to scan	• **All files** — Scan all files regardless of extension. CAUTION: Failure to enable **All files** leaves your system unprotected from numerous malware attacks. • **Default + additional file types** — Scan the default list of extensions plus any additions you specify. The default list is defined by the current DAT file. **Also scan for macros in all files** — If you selected this optopn, you can also search for known macro threats in all files. • **Specified file types only** — Create a list of user-specified extensions to be scanned. You can also remove any extensions you added previously. Select this option, then enter file extensions separated by spaces in the text box.
Artemis (Heuristic network check for suspicious files)	• **Find unknown program threats and Trojans** — Use Artemis scanning to detect executable files that have code resembling malware. • **Find unknown macro threats** — Use Artemis scanning to detect unknown macro viruses. CAUTION: Failure to enable **Artemis** leaves your system unprotected from numerous malware attacks.

Option	Definition
Compressed files	• **Scan inside archives** — Examine archive (compressed) files and their contents. • **Decode MIME encoded files** — Detect, decode, and scan Multipurpose Internet Mail Extensions (MIME) encoded files. NOTE: Although it provides better protection, scanning compressed files can increase the time required to perform a scan.
Unwanted programs detection	• **Detect unwanted programs** — Enables the on-access scanner to detect potentially unwanted programs. The scanner uses the information you configured in the **Unwanted Programs Policy** to detect potentially unwanted programs. See *Restricting potentially unwanted programs* for more information.

Actions tab

Configure which actions to take when a threat or potentially unwanted program is detected.

Option definitions

Option	Definition
When a threat is found	**Perform this action first** — Select the first action that you want the scanner to take when a threat is detected. *Default = Clean files*. • **Clean files** — The scanner tries to remove the threat from the detected file. • **Continue scanning** — Continue scanning when a threatened file is detected. • **Delete files automatically** — The scanner deletes files with potential threats as soon as it detects them. **If the first action fails, then perform this action** — Select the next action you want the scanner to take if the first action fails. *Default = Delete files*. • **Continue scanning** — Continue scanning when a threatened file is detected. • **Delete files**— The scanner deletes files with potential threats as soon as it detects them.
When an unwanted program is found	**Perform this action first** — Select the first action that you want the scanner to take when a threat is detected. *Default = Clean files*. • **Clean files** — The scanner tries to remove the threat from the detected file. • **Continue scanning** — Continue scanning when a threatened file is detected. • **Delete files** — The scanner deletes files with potential threats as soon as it detects them. **If the first action fails, then perform this action** — Select the next action you want the scanner to take if the first action fails. *Default = Delete files*. • **Continue scanning** — Continue scanning when a threatened file is detected. • **Delete files**— The scanner deletes files with potential threats as soon as it detects them.

Exclusions tab

Specify what items to exclude from scanning.

Option definitions

Option	Definition
What to exclude	Select the type of exclusion from the drop down list, then specify the details for the exclusion: • **Exclude by file name/location** — Type the file name and location in the text box. Select **Also exclude subfolders** if required. NOTE: You must add a backslash (\) at the end of the string to apply to a folder. Otherwise, it is considered a file exclusion and the **Also exclude subfolders** checkbox is disabled by default. • **Exclude by file type** — Type the file type in the text box. • **Exclude by file age** — Select the access type, then specify the minimum age in days. See *Adding and Excluding scan items* for more information.
When to exclude	Select when to exclude the selected item: • **On read** • **On write**
How to handle client exclusions	**Overwrite client exclusions** — Only exclude items specified in this policy. If this option is not selected, the client computer uses exclusions that were specified locally and the exclusions specified in this policy. NOTE: This option configured only via ePolicy Orchestrator.

Reports tab

Enable logging to track activity on your network and record which settings you used to detect and respond to any potential threat that the scanner found.

Option definitions

Option	Definition
Log to file	Enable activity logging.
Log file location	Accept the default location for the log file or specify a new location. The default log name is *OnDemandScanLog.txt*. The default location is: <drive>:\Documents and Settings\All Users\Application Data\McAfee\DesktopProtection\ . The default location may vary depending on which operating system you are using.
Log file size	Limit the size of the log file. Accept the default size (1 MB) or set a size from 1 MB to 999 MB. If the data in the log file exceeds the file size you set, the oldest 20 percent of the entries are deleted and new data is appended to the file.
Log file format	Select the format of the log file. *Default = Unicode (UTF8).* • **Unicode (UTF8)** — Recommended if you are storing eastern text (every character is one or two bytes), or sharing information within a multi-national organization. • **Unicode (UTF16)** — Recommended if you are storing eastern text (every character is one or two bytes), or sharing information within a multi-national organization. • **ANSI** — Recommended if you are storing western text (every character is one byte), we recommend using ANSI format.
What to log in addition to scanning activity	• **Session settings** — Record the properties for each scanning session in the log file. • **Session summary** — Record a summary of the scanner's actions during each scanning session in the log file. Summary information includes the number of files scanned, the number and type of detections, the number of files cleaned or deleted, and other information. • **Failure to scan encrypted files** — Record the name of encrypted files that the scanner failed to scan.
Alert when a cookie detection occurs	**Alert when a cookie detection occurs** — Send alerts when cookies are detected. This includes generating ePolicy Orchestrator alerts, detection notifications, recording detections in the activity log if you enabled activity logging on the **Reports** tab, and counting detections in the scan statistics. If you deselect this option, ePolicy Orchestrator does not generate alerts, but detections will still be recorded in the activity log if you enabled activity logging on the **Reports** tab, and counted in the scan statistics

Scan Items tab

Configure detection options.

Option definitions

Option	Definition
File types to scan	• **All files** — Scan all files regardless of extension. • **Default + additional file types** — Scan the default list of extensions plus any additions you specify. The default list is defined by the current DAT file. Select this option, then enter file extensions separated by spaces in the text box. **Also scan for macros in all files** — If you selected **Default + additional file types**, you can also search for known macro threats in all files. • **Specified file types** — Create a list of user-specified extensions to be scanned. You can also remove any extensions you added previously. Select this option, then enter file extensions separated by spaces in the text box.
Options	• **Detect unwanted programs** — Enables the on-access scanner to detect potentially unwanted programs. The scanner uses the information you configured in the **Unwanted Programs Policy** to detect potentially unwanted programs. See *Restricting potentially unwanted programs* for more information. • **Decode MIME encoded files** — Detect, decode, and scan Multipurpose Internet Mail Extensions (MIME) encoded files. • **Scan inside archives** — Examine archive (compressed) files and their contents. Although it provides better protection, scanning compressed files can increase the time required to perform a scan. • **Scan files that have been migrated to storage —** Scans cached files stored on Remote Storage. See *How scanning of remote storage works* for more information.
Artemis (Heuristic network check for suspicious files)	• **Find unknown programs threats** — Use Artemis scanning to detect executable files that have code resembling malware. • **Find unknown macro threats** — Use Artemis scanning to detect unknown macro viruses.

Task tab

Specify the platforms where this on-demand task runs.

Option definitions

Option	Definition
Platforms where this task will run	• **Run this task on servers** — Run this on-demand scan task on servers. • **Run this task on workstations** — Run this on-demand scan task on workstations.
User account to use when running task	• **Username** — Specify the user's account name. If no account information is entered, the task runs under the system account. • **Password** — Type the password. • **Domain** — Type the domain.

NOTE:

You must have administrative rights to schedule the task. Administrative rights provide the user with write access to the scheduled tasks registry key. For information about scheduling client tasks, see the ePolicy Orchestrator documentation.

Password Options tab

Set password security for the entire system or selected items. See *How setting a password affects users* for more information.

Option definitions

Option	Definition
Settings for	Select **Workstation** or **Server** from the drop-down list. NOTE: This option is only available via ePolicy Orchestrator.
User interface password	Specify the user interface security: • **No password** — No password is required to access configuration settings. • **Password protection for all items listed**— Specify one password for all the items in the list. • **Password protection for the selected items** — Specify one password for selected items in the list. • **Password protection for conformance to Common Criteria** — Secure the interface as required for government agencies that must use only National Information Assurance Partnership (NIAP) Common Criteria validated security products. This secures all configuration options from users without administrative credentials except that workstation users can perform an immediate on-demand scan of their own workstation. Include or exclude files from an immediate on-demand scan. Include or exclude archives, such as a .ZIP file, from an immediate on-demand scan. View on-demand scan and on-access scanning activity logs. **Password** — Type the password. **Confirm password** — Type the password again to confirm it.
User interface items to password protect	Select the items that you want to protect with the password. • **Select All** — Select all items in the section. • **Deselect All** — Deselect all items in the section. Administrators can lock or unlock the interface through the **Console**.

Processes tab

Choose whether to configure one scanning policy for all processes or different scanning policies for default, low-risk and high-risk processes.

See *Determining the number of scanning policies* and *Determining which risk to assign to a process* for more information.

Option definitions

Option	Definition
Settings for	Select **Workstation** or **Server** from the drop-down list. NOTE: This option is only available via ePolicy Orchestrator.
Process settings	Specify whether to configure one or more scanning policies: • **Configure one scanning policy for all processes** — If you select this option, the policy you configure applies to all processes. • **Configure different scanning policies for high-risk, low-risk, and default processes** — You must select this option before you can configure policies for low-risk or high-risk processes.

Processes tab

Specify the processes that you define as low-risk. This is a two-step process.

Option definitions for step 1

Option	Definition
Settings for	Select **Workstation** or **Server** from the drop-down list. NOTE: This option is only available via ePolicy Orchestrator.
Process settings	Open the **On-Access Default Processes Policies** and select: • **Configure different scanning policies for high-risk, low-risk, and default processes** NOTE: You must select this option before you can configure policies for low-risk or high-risk processes.

Option definitions for step 2

Option	Definition
Settings for	Select **Workstation** or **Server** from the drop-down list. NOTE: This option is only available via ePolicy Orchestrator.
Low-Risk Processes	Open the **On-Access Low-Risk Processes Policies** to specify the processes that you identify as low-risk. Add and remove processes as required.

See *Determining the number of scanning policies* and *Determining which risk to assign to a process* for more information.

Processes tab

Specify the processes that you define as high-risk. This is a two step process.

Option definitions for step 1

Option	Definition
Settings for	Select **Workstation** or **Server** from the drop-down list. NOTE: This option is only available via ePolicy Orchestrator.
Process settings	Open the **On-Access Default Processes Policies** and select: • **Configure different scanning policies for high-risk, low-risk, and default processes** NOTE: You must select this option before you can configure policies for low-risk or high-risk processes.

Option definitions for step 2

Option	Definition
Settings for	Select **Workstation** or **Server** from the drop-down list. NOTE: This option is only available via ePolicy Orchestrator.
High-Risk Processes	Open the **On-Access High-Risk Processes Policies** to specify the processes that you identify as high-risk. Add and remove processes as required.

See *Determining the number of scanning policies* and *Determining which risk to assign to a process* for more information.

Scan Items tab

Select categories of potentially unwanted programs to detect and create exclusions for programs that you do not want to detect.

Option definitions

Option	Definition
Settings for	Select **Workstation** or **Server** from the drop-down list. NOTE: This option is only available via ePolicy Orchestrator.
Select categories of unwanted programs to detect	Specify the categories of potentially unwanted programs to detect.
Unwanted program exclusions	Specify exclusions by detection name. Add and remove items as required.

Quarantine Policy tab

Configure the quarantine location and the length of time to keep the quarantined items.

Option definitions

Option	Definition
Settings for	Select **Workstation** or **Server** from the drop-down list. NOTE: This option is only available via ePolicy Orchestrator.
Quarantine Directory	Accept the default location for the quarantine directory or specify a new location. *Default = <SYSTEM_DRIVE>\Quarantine.*
Quarantined data retention	• **Automatically delete quarantined data —** Delete quarantined items after the specified number of days. • **Number of days to keep backed-up data in the quarantine directory —** Specify the number of days to keep the quarantined items before automatically deleting them. Choose from 1 to 999 days.

Policy tab

Configure the quarantine location and the length of time to keep the quarantined items.

Option definitions

Option	Definition
Settings for	Select **Workstation** or **Server** from the drop-down list. NOTE: This option is only available via ePolicy Orchestrator.
Quarantine Directory	Accept the default location for the quarantine directory or specify a new location. *Default = <SYSTEM_DRIVE>\Quarantine.*
Quarantined data retention	• **Automatically delete quarantined data —** Delete quarantined items after the specified number of days. • **Number of days to keep backed-up data in the quarantine directory —** Specify the number of days to keep the quarantined items before automatically deleting them. Choose from 1 to 999 days.

Manager tab

Select an item in the list , then right-click to access advanced options. You can rescan, check for false positive, restore, delete, or view properties.

Task tab

Specify account information for the user who has access to the restore location. If no account is entered here, the restore task runs under the system account.

Option definitions

Option	Definition
User	Type the name of the user which has access to the restore location.
Password	Type a password for the specified user.
Domain	Type the domain for the specified user.

Scan Locations tab

Configure the item types and locations to scan.

Option definitions

Option	Definition
Locations to scan	Select the locations to scan. *Default = Memory for rootkits, running processes, all local drives, registry, and cookies.* Click **Add**, **Edit**, and **Remove** to change the **Item name**(s). • **Memory for rootkits**. Scans system memory for installed rootkits, hidden processes and other behavior that suggests malicious code is attempting to hide itself. This scan occurs before all other scans. CAUTION: Failure to enable **Memory for rootkits** scans leaves your system unprotected from numerous malware attacks. • **Running processes**. Scans the memory of all running processes. Actions other than **Clean** are treated as **Continue scanning**. CAUTION: Failure to enable **Running processes** scans leaves your system unprotected from numerous malware attacks. • **Registered Files**. Scans all files that are registered. The scanner first searches the registry for file names, then scans the files. The scanner removes references to potentially unwanted files from the registry. • **My computer.** Scans all drives physically attached to your computer or logically mapped to a drive letter on your computer. • **All local drives**. Scans all drives and their subfolders on your computer. • **All fixed drives**. Scans all drives physically connected to your computer. • **All removable drives**. Scans all removable drives or other storage devices connected to your computer. • **All mapped drives**. Scans network drives logically mapped to a network drive on your computer. • **Home folder**. Scans the home folder of the user who starts the scan. • **User profile folder**. Scans the profile of the user who starts the scan, including the user's **My Documents** folder. • **Windows folder**. Scans the contents of the Windows folder. • **Program Files folder**. Scans the contents of the Program Files folder. • **Temp folder**. Scans the contents of the Temp folder. • **Recycle bin**. Scans the contents of the recycle bin. • **Drive or folder**. Scans the specified drive or folder. • **File**. Scans the specified file. • **Cookies**. Scans cookies in the cookies folder. • **Registry**. Scans registry entries. NOTE: Using the default list of scan items can result in a thorough scan that is very time consuming. Consider whether you want to narrow the scope of this scan for regular use.

Option	Definition
	When the **On-Demand Scan Progress** dialog appears, the locations to scan appear as a comma-separated string following **Scanning in**. As the scan processes are completed, they are removed from the string.
Scan options	The type of scan for the selected item. • **Include subfolders —** The scanner examines all subfolders in the specified volumes. Deselect this option to scan only the root level of the volumes. • **Scan boot sectors —** The scanner examines the disk boot sector. It may be appropriate to disable boot sector scanning when a disk contains a unique or abnormal boot sector that cannot be scanned.

Performance tab

Specify scan deferral and system utilization options to improve performance.

Option definitions

Option	Definition
Scan deferral options	Select the scan deferral option: • **Defer scan when using battery power**— Postpone the scan when the system is in use and using battery power. • **Defer scans during presentations**— Postpone the scan while the system is in presentation mode. • **User may defer scheduled scans** — Allow the user to defer scheduled scans. • **Defer at most** — Specify the length of time to defer the scan. Select between one and 24 hours or select zero to defer the scan forever. See *How scan deferral works* for more information.
System utilization	Use the list, from ePolicy Orchestrator, or the slider, from the VirusScan Console, to set the utilization schedule for the scan. Each task runs independently; unaware of the limits for other tasks. The increments are: • **Low** • **Below normal** — *The ePolicy Orchestrator default.* • **Normal** — *The VirusScan Enterprise 8.8 default.*
Artemis (Heuristic network check for suspicious files)	Configure the sensitivity level you wish to use when determining if a detected sample is malware. For all levels other than **Disabled**, fingerprints of samples, or *hashes*, are submitted to McAfee Labs to determine if they are malware. The benefit to you is that detection may be made available as soon as McAfee Labs publishes the update, and you would not have to wait for the next DAT release. The higher the sensitivity level you choose, the higher the number of malware detections. However, by allowing more detections, you may also get more false positive results. Choose from these sensitivity levels: • **Disabled** — No fingerprints or any data are submitted to McAfee Labs to determine if they malware. • **Very Low** —The detections and risk of false positives are the same as with regular DATs. A detection is made available to VirusScan Enterprise when McAfee Labs publishes it instead of waiting for the next DAT update. • **Low** — This level is defined as between **Very Low** and **Medium**. • **Medium** — Use this level when the regular risk of exposure to malware is greater than the risk of a false positive. McAfee Labs proprietary, heuristic checks results in detections that are likely to be malware. However, there is some risk that a detection on a file that isn't common may result in a false positive. McAfee Labs checks that detections with this setting will not create a false positive on popular applications and operating system files. • **High** — This level is defined as between **Medium** and **Very High**. • **Very High** —We recommend using this level only for email and for scanning volumes and directories that support neither executing programs nor operating

Option	Definition
	systems. Detections found with this level are presumed to be malicious, but they haven't been fully tested to confirm that they are not false positives.

ScriptScan tab

Prevent unwanted scripts from executing.

See *Script scanning and how it works* for more information.

Option definitions

Option	Definition
Settings for	Select **Workstation** or **Server** from the drop-down list. NOTE: This option is only available via ePolicy Orchestrator.
ScriptScan	**Enable scanning of scripts —** Scan JavaScript and VBScript scripts before they are executed.
ScriptScan process exclusions	**Process —** Specify ScriptScan exclusions by process name. Wildcards are not allowed when specifying process names.

ScriptScan URL exclusions	**URL —** Specify ScriptScan URL exclusions by URL. **Note** the following:
	• Wildcards are not allowed when specifying URLs. But, for example, if the URL msn.com is excluded, any URL with that string is excluded from scanning. For example, the following URLs are excluded:
	  • http://weather.msn.com
	  • http://music.msn.com
	• On Windows Server 2008, Script Scan URL exclusions do not work with Windows Internet Explorer unless you click the checkbox **Enable third-party browser extensions** to enable the setting and restart Windows Server 2008. For details, see https://kc.mcafee.com/corporate/index?page=content&id=KB69526.

User-Defined Detection tab

Specify individual files or programs to treat as unwanted programs.

Option definitions

Option	Definition
Settings for	Select **Workstation** or **Server** from the drop-down list. NOTE: This option is only available via ePolicy Orchestrator.
User-defined items	• **file name** — Specify the name of the file or program that you want to detect. • **Description** — Specify the description that you want to display in the notification when the specified file is detected. NOTE: The scanner will not detect a zero byte sized user-defined unwanted program.

Repositories tab

Configure the repositories where you get updates.

NOTE:

This feature is not available from the ePolicy Orchestrator Console. Access this feature from the VirusScan Enterprise 8.8 Console.

Option definitions

Option	Definition
Repository description	Specify the name of the repository. The list is preconfigured with an HTTP and an FTP repository. • http://update.nai.com/Products/CommonUpdater • ftp://ftp.nai.com/CommonUpdater The HTTP repository is the default download site.
State	**Enabled** — A defined repository that can be used during the AutoUpdate process. **Disabled** — A defined repository that you do not want to access during the AutoUpdate process. This might be a repository that you use occasionally, but not all of the time. NOTE: Create as many repository sites as necessary, then enable and disable them.
Add	Add a new repository to the list.
Edit	Edit the selected repository.
Delete	Delete the selected repository.
Move up	Move the selected repository up in the list.
Move down	Move the selected repository down in the list.

Adding and editing repositories

Add new repositories or edit existing repositories.

Option definitions

Option	Definition
Repository description	Specify the name of the repository.
Retrieve files from	Select the location from which to retrieve files. *Default = HTTP repository*. • **HTTP repository** — Retrieve files from the HTTP repository location that you designate. NOTE: An HTTP site, like FTP, offers updating independent of network security, but supports higher levels of concurrent connections than FTP. • **FTP repository** — Retrieve files from the FTP repository location that you designate. NOTE: An FTP site offers flexibility of updating without having to adhere to network security permissions. FTP has been less prone to unwanted code attach than HTTP, so it may offer better tolerance. • **UNC path** — Retrieve files from the UNC path location that you designate. NOTE: A UNC site is the quickest and easiest to set up. Cross domain UNC updates require security permissions for each domain, which makes update configuration more involved. • **Local path** — Retrieve files from the local path location that you designate.
URL	Available only if you selected **HTTP repository** or **FTP repository**. • **HTTP** — Type the location for the HTTP server and folder where the update files are located. • **FTP** — Type the location for the FTP server and folder where the update files are located.
Path	Available only if you selected **UNC path** or **Local path**. • **UNC path** — Using UNC notation (\\servername\path\), type the path of the repository where the update files are located. • **Local path** — Type the path of the local folder in which you have placed the update files, or click **Browse** to navigate tot he folder. The path can be that of a folder on a local drive or a network drive.
Port	Available only if you selected **HTTP repository** or **FTP repository**. Type the port number for the HTTP or FTP server you specified.
Use authentication **Use anonymous login** **Use logged on account**	Use the specified credentials for accessing the repository. NOTE: The title of this option differs depending on which option you selected in the **Retrieve files from** section. The credentials you specify are used by AutoUpdate to access the repository so that it can download the required update files. When configuring the account credentials

Option	Definition
	on the repository, you ensure that the account has read permissions to the folders containing the update files. • Download credentials are required for FTP and UNC repositories, but are optional for HTTP repositories. • FTP updates support anonymous repository connections. • With UNC updates you can also use the logged on account, making use of the logged on user's permissions to access the repository.
User name	Type the user name
Password	Type the password.
Confirm	Type the password again to confirm it.

Proxy settings tab

Proxy servers are used as part of internet security to hide internet users' computers from the internet and improve access speed by caching commonly accessed sites.

If your network uses a proxy server, you can specify which proxy settings to use, the address of the proxy server, and whether to use authentication. Proxy information is stored in the AutoUpdate repository list (sitelist.xml). The proxy settings you configure here apply to all repositories in this repository list.

NOTE:

This feature is not available from the ePolicy Orchestrator Console. Access this feature from the VirusScan Enterprise 8.8 Console.

Option definitions

Option	Definition
Don't use a proxy	Do not specify a proxy server.
Use Internet Explorer proxy settings	Use the proxy settings for the currently installed version of Internet Explorer. *Default* = Use Internet Explorer proxy settings.
Manually configure the proxy settings	Configure the proxy settings to meet your specific needs.
Exceptions	Available only if you selected Manually configure the proxy settings. Specify proxy exceptions. Click Exceptions to open the Proxy Exceptions dialog box: • **Specify exceptions** — Select this option to enter proxy exceptions. • **Use semicolons (;) to separate entries** — For example: internal1;internal2
HTTP	Type the address of the HTTP proxy server.
FTP	Type the address of the FTP proxy server.
Port	Type the port number of the HTTP or FTP proxy server.
Use authentication for HTTP	Use the specified credentials for accessing the HTTP proxy.
HTTP user name	Type the HTTP user name.
HTTP password	Type the HTTP password.

Mirror task

Configure the mirror task

VirusScan Enterprise 8.8 Console — Option definitions

Option	Definition
Log File	Enable activity logging.
Format	Select the format of the log file. *Default = Unicode (UTF8).* • **Unicode (UTF8)** — Recommended if you are storing eastern text (every character is one or two bytes), or sharing information within a multi-national organization. • **Unicode (UTF16)** — Recommended if you are storing eastern text (every character is one or two bytes), or sharing information within a multi-national organization. • **ANSI** — Recommended if you are storing western text (every character is one byte), we recommend using ANSI format.
Get newer detection definition files if available	This option does not apply to mirror tasks.
Get newer detection engine if available	This option does not apply to mirror tasks.
Get other available updates (service packs, upgrades, etc.)	This option does not apply to mirror tasks.
Enter the executable to be run after the Mirror has completed	Specify an executable file to start after the mirror task finishes running. Specify the path to the executable you want to run, or click Browse to locate it. For example, you can start a network message utility that notifies the administrator that the mirror task completed successfully. NOTE: The program file that you specify must be executable by the currently logged on user. If the currently logged on user does not have access to the folder containing the program files, or if there is no currently logged on user, the program does not run.
Only run after successful mirror	Run the executable program only after a successful mirror. If the mirror is not successful, the program you specified does not run.
Mirror Location	Specify the path to the destination on the local system that you are using for the mirror site. NOTE: System variables are supported.
Schedule	Define the schedule for this update task. NOTE: See Scheduling Tasks for more information. We do not recommend that you schedule an AutoUpdate task and a mirror task to run at the same time. Both tasks use the McAfee Common Framework service, consequently running both tasks at the same time may result in a conflict.
Mirror Now	Perform the mirror task immediately.

AutoUpdate task

Configure the AutoUpdate task

Option definitions

Option	Definition
Log File	Enable activity logging.
Format	Select the format of the log file. *Default = Unicode (UTF8).* • **Unicode (UTF8)** — Recommended if you are storing eastern text (every character is one or two bytes), or sharing information within a multi-national organization. • **Unicode (UTF16)** — Recommended if you are storing eastern text (every character is one or two bytes), or sharing information within a multi-national organization. • **ANSI** — Recommended if you are storing western text (every character is one byte), we recommend using ANSI format.
Get newer detection definition files if available	Get the most current version of the DAT files if a newer version is available.
Get newer detection engine if available	Get the most current version of the engine and DAT files if newer versions are available.
Get other available updates (service packs, upgrades, etc.)	Get the most current version of other updates, such as service packs and product upgrades.
Enter the executable to be run after the Update has completed	Specify an executable file to start after the AutoUpdate task finishes running. Specify the path to the executable you want to run, or click Browse to locate it. For example, you can start a network message utility that notifies the administrator that the AutoUpdate task completed successfully. NOTE: The program file that you specify must be executable by the currently logged on user. If the currently logged on user does not have access to the folder containing the program files, or if there is no currently logged on user, the program does not run.
Only run after successful update	Run the executable program only after a successful update. If the update is not successful, the program you specified does not run.
Schedule	Define the schedule for this update task. NOTE: See Scheduling Tasks for more information. We do not recommend that you schedule an AutoUpdate task and a mirror task to run at the same time. Both tasks use the McAfee Common Framework service, consequently running both tasks at the same time may result in a conflict.
Update Now	Perform the AutoUpdate task immediately.

Schedule tab

Specify the schedule frequency and other settings for this task.

Option definitions

Option	Definition
Runtime	Run task Select the frequency for this task from these options: Daily — Run the task daily on the specified days. Daily tasks can be run every so many days, or every day Monday through Sunday. If you only want to run the task on specific days of the week, other than every day Monday through Sunday, we recommend that you use the weekly task frequency. Weekly — Run the task daily on the specified week(s) and day(s). Monthly — Run the task daily on the specified day(s) and month(s). Once — Run the task once on the specified date. At Startup — Run the task at system startup and specify whether to run the task once per day and the number of minutes to delay the task. At Logon — Run the task at log on and specify whether to run the task once per day and the number of minutes to delay the task. When Idle — Run the task when the computer is idle and specify the number of minutes that the computer is idle before starting the task. If the task is started and a user resumes use of the computer before the task completes, the task continues to run until complete. Immediately — Run the task immediately. On Dialup — Run the task on dialup.
Start Time	Select the start time for the scheduled task.
UTC Time	Coordinated Universal Time (UTC). Select this option to run the task simultaneously in all time zones.
Local Time	Run the task independently in each local time zone. NOTE: *Default*= Local Time
Enable randomization	Run the task at a random point within the interval of time you set. If you select this option, also specify the hours and minutes for the maximum time lapse. NOTE: Specify a time lapse interval between one minute (minimum) and 23 hours (maximum). For example, setting the task schedule to 1:00 and the randomization to three hours, would cause the task to run at any time between 1:00 and 4:00. This option is not available when scheduling the task At Startup, At Logon, or When Idle.
Hours	The number of hours. Choose between 0 and 23 hours

Option	Definition
Minutes	The number of minutes. NOTE: The number of minutes available for selection depends on which options you have selected. For example: • **Enable randomization** — Choose between 0 and 59 minutes. • **Delay missed task by** — Choose between 0 and 99 minute.
Run if missed	Ensure that missed tasks run when the computer starts up again. If the computer was offline when a task was scheduled to be run, it may have been missed. NOTE: This feature ensures that remote users and the network are fully protected if they happen to be offline when a task is scheduled to run.
Delay missed task by	Select the number of minutes by which you want to delay the missed task. Choose between 0 to 99 minutes.
Every day(s)	Run this task every so many days as specified. Choose between 0 to 9999 days. NOTE: This option is only available when you schedule the task Daily.
Every week(s)	Run this task every so many weeks as specified. Choose between 0 to 99 weeks. If you select this option, also specify the number of weeks and the day(s) of the week. NOTE: For day of the month, choose from Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, and Saturday. This option is only available when you schedule the task Weekly.
Day of the month	Run this task on a specific day of the month. Choose between 1 to 31 days. If you select this option, also specify the number of day of the month. NOTE: This option is only available when you schedule the task Monthly.
Week day of the month	Run this task on the specified day of the month. If you select this option, also select occurrence and day of the month. NOTE: For occurrence, choose from First, Second, Third, Fourth, and Last. For day of the month, choose from Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, and Saturday. This option is only available when scheduling the task Monthly.
Select Months	Specify which months to run this task. NOTE: This option is only available when scheduling the task Monthly.
Run on	Specify the date on which you want to run this task. NOTE: This option is only available when scheduling the task Once.
Only run this task once a day	Run this task once per day. NOTE: If you do not select this option, the task runs every time startup or log on occurs. This option is only available when scheduling the task At Startup, At Logon, or Run On Dialup.
Delay task by	Specify the number of minutes by which to delay this task. Choose between 0 to 99. NOTE: This allows time for users to log on and logon scripts to execute.

Option	Definition
	This option is only available when scheduling the task At Startup or At Logon.
When computer has been idle for	Specify the number of minutes that the computer is idle before starting the task. Choose between 0 to 999 minutes. NOTE: If the task is started and a user resumes use of the computer before the task completes, the task continues to run until complete. This option is only available when scheduling the task When Idle.
Advanced	Configure advanced options. NOTE: See Advanced scheduling options for more information.

Task tab

Enable the schedule for this task and specify user account settings.

Option definitions

Option	Definition
Enable (scheduled task runs at specified time)	Schedule the task to run at a specified time. NOTE: This option must be selected to schedule the task.
Stop the task if it runs for	Stop the task after the number of hours and minutes that you specify. NOTE: If the task is interrupted before it completes, the next time it starts it resumes scanning from where it left off.
Hours	The number of hours after which the task will stop.
Minutes	The number of minutes after which the task will stop.
User	Type the user ID under which this task executes. NOTE: The use of credentials is optional. If you do not type credentials here, the scheduled task runs under the local system account. See Log on privileges for more information.
Domain	Type the domain for the user ID you specified.
Password	Type the password for the user ID and domain you specified.

Advanced schedule options

Configure the schedule parameters.

Option definitions

Option	Definition
Start Date	Specify the date to start this task.
End Date	Specify the date to end this task.
Repeat Task	Repeat the task at the specified frequency. If you select this option, also specify how frequently to repeat this task.
Every	Specify how frequently to repeat this task. Also select whether you want the frequency to be hours or minutes.
Time (Local)	Repeat this task at the specified local time. If you select this option, also select the specific time.
Duration	Repeat this task for the specified hours and minutes. If you select this option, also select the hours and minutes.
Hours	The number of hours. Choose between 0 to 99.
Minutes	The number of minutes. Choose between 0 to 59.

Global Scan Settings tab

Set scan cache options to save scan data during a system reboot and allow on-demand scans to use that clean cache data to improve performance. See *Configuring global option settings* for more information.

Option definitions

Option	Definition
Settings for	Select **Workstation** or **Server** from the drop-down list. NOTE: This option is only available via ePolicy Orchestrator.
Scan cache	Configure the global options and settings • **Enable saving scan data across reboots** — This allows you to save clean scan results even when you reboot the system. *(Default = selected.)* NOTE: Disable this feature if the system is used where the hard drive(s) might be altered externally. For example, if the hard drive is removed, its contents updated, and, later, replaced (virtual machines and systems with dual boot configurations are included in this exception). • **Allow On-Demand Scans to utilize the scan cache** — This allows the on-demand scanner to use the existing clean scan results to reduce duplicate scanning. *(Default = selected.)*

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